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BASIC PRINCIPLES UNDERLYING THE TREATMENT OF POLIOMYELITIS

Caroline Goss Thompson, O.T.R.*

Ever since the widespread adoption of what is euphemistically called *Newer Methods of Treating Infantile Paralysis,* it has been apparent that the three cardinal symptoms observed by Sister Kenny are present in the acute phase of the disease. In her own terminology these are (1) spasms, (2) incoordination and (3) mental alienation.

Spasm is defined as the involuntary contraction of a muscle and may be characterized by fasciculation, hypertonicity, hyperirritability, and persistent shortening. The effect of this is that the involved muscle becomes tender and painful on motion or handling, and the patient to avoid pull on these muscles is apt to assume distorted asymmetrical positions of body segments. If early treatment is neglected, this shortening becomes irreversible and the muscle becomes permanently contracted, producing crippling deformities. The location of the spasm may be in any muscle and is often widely distributed. It is most commonly noted clinically in the hamstrings, back, and neck, posterior calf, pectorals, muscles of respiration, quadriceps and biceps of the arm.[1] Treatment is by stretching and hot packs to the involved muscles which during the acute stage are continuous during the day, sometimes changed as often as every fifteen minutes. During convalescence these may be spaced every two hours or even three times a day, and are continued until the muscles relax. This treatment is a relief to the patient who often sleeps when the packs have been put on. The cause of this phenomenon, muscle spasm, was unexplained when it was noted, and the enigma presented a challenge to neurophysiologists who felt it deserved investigation as a possible clue to new information about how the human nervous system works.

A resume of recently uncovered knowledge in the field of neurophysiology as it relates to poliomyelitis nets us the following observations.

A normal muscle when it is stretched releases a short burst of electrical activity on the initiation of the pull and sometimes at the end.[2] This is evidence of the activity of some of the muscle fibers and is recorded usually as a single spike. It looks like this.

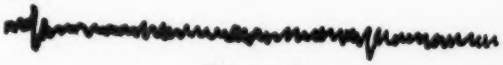

Diagram 1.

This is known as the stretch reflex, or more technically the myotatic reflex.

In poliomyelitis, it has been demonstrated that the activity is of the same magnitude as in a normal muscle, but its duration is longer, continuing throughout the pull, like this:

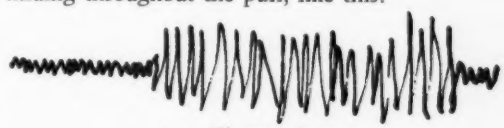

Diagram 2.

This is the electromyographic picture of spasm in poliomyelitis.[3] It represents a disturbance in the normal two-neuron reflex arc of sensory excitation, in which a nerve impulse runs along a sensory pathway from a muscle through a synapse at the anterior horn cell in the cord and back to the same muscle by a motor pathway, causing the muscle to contract. Spasm is a reflex phenomenon and disappears under spinal anesthesia. It may be due to the nerve impulses passing through a multi-neuron path, each synapse having delayed it by .5 milliseconds; the intervals suggest this explanation as the length from wave to wave is this well-known unit of .5 milliseconds, the exact time it takes the nerve impulse to cross the synapse (connection

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between one neuron and the next).

Innervated muscle has in addition the property that it may develop contractures from inactivity, even in the short period of a few weeks. In order to avoid this, early treatment includes passive and active motion. Denervated muscle is less liable to develop contractures from inactivity but exhibits flaccid paralysis. Actually spasm indicates a muscle in which, though the muscle may be temporarily inactive, some of the fibers still demonstrate a motor nerve connection with the spinal cord.

Another aspect of the two-neuron reflex arc affected by poliomyelitis is reciprocal innervation. According to the well-known principle of neurophysiology, a muscle when it contracts sends an inhibitory impulse to the motor nerve of its antagonist, so that relaxation there will assist the motion. In poliomyelitis, however, contraction of a muscle may lead to activity in the muscle fibers not only of its own antagonist, but of the similar two muscles in the opposite extremity. This is true mainly of muscles innervated at the same spinal level and crossing the same joint. Muscles crossing adjacent joints seldom influence each other in this ways.[4] The deduction here is that nerve impulses spread in many directions through the cord, initiating activity. This is a second piece of evidence locating the lesion in poliomyelitis adjacent to the anterior horn cell, the only juncture at which these functions can be interrupted, unless there is a lesion peripherally.

The effect of this reversal of reciprocal innervation is poor coordination on attempting motion. Heavy resistive exercise can result in a decrease in coordination, for the time being, in poliomyelitis patients so that the patient attempting to move does so with a rigid sort of tremor, both agonist and antagonist obviously contracting at the same time. To avoid this, the occupational therapy program awaits the establishment by the physical therapist of the ability to produce well-coordinated movements, however weak. Occupational therapy can begin quite early if the patient is conscious of and can recognize by feeling the correct muscle pattern,[5] if the work is light, and if the therapist watches for any return to an undesirable pattern of activity. If incoordination again occurs, work in occupational therapy ceases and the patient is continued on further training to establish coordination in physical therapy.

The third symptom, "mental alienation," is probably a block due to the disease process, edema and pressure effecting an interruption of motor impulses coming down the cord from the motor cortex. Here again the seat of the lesion may be in the internuncials or connecting nerve fibers adjacent to the anterior horn cell. The fact is that a muscle which will not respond to voluntary innervation may show activity when stimulated reflexively at the spinal level. This means an intact reflex arc including the motor nerve. And the fact that stronger contraction can sometimes be obtained by passive stretching than voluntarily[6] means there are probably additional muscle fibers which may be called into action in this way which do not respond to voluntary innervation. This is at the bottom of the effort to stimulate a non-acting muscle to contract through a pull at the end of its range, part of the "newer method of treating infantile paralysis," and is one good reason for assisting a weakened muscle with flexible support encouraging a full range of motion, like the slings hung from springs used at Georgia Warm Springs Foundation.

One of our patients whose quadriceps was showing no response when he was discharged home, returned for a check-up later and at this time the muscle obviously functioned in combination with a group of others about the knee joint, but the patient was still unable to extend his knee when asked to do so. In this case, the patient was given muscle reeducation in physical therapy to reestablish voluntary control. It is still not possible to distinguish at an early stage which muscles are non-acting due to a permanent destruction of the anterior horn cell, and which are merely alienated and can be taught to respond again as the disease process subsides.

The present role of the occupational therapist in treatment of these patients indicates that activity is beneficial earlier[7] than was thought possible before the advent of newer methods of treatment—not for totally paralyzed or non-functioning muscles, and not in the toxic stages of the disease.

It is possible that the wide-spread lesions seen throughout brain tissue in these patients are evidence of the serious effects of anoxia. The lesions due to the polio virus in monkeys sacrificed in the acute stage of the disease are confined to motor tracts and areas of the central nervous system.[8] Secondary damage from too little oxygen is forestalled by supplying patients with oxygen by intubation through the nostril. Three of the patients whose treatment is shown in the photographs which follow are receiving auxiliary oxygen. The position in which such patients may be placed for treatment in occupational therapy, in later stages, often depends on the efficiency with which they breathe.

Continuously throughout the hospital care of the poliomyelitis patient the physical therapist carries on a vital part of the essential care of the patient. Hot packing may be supervised and active and passive motion given by the physical therapist. Stretching to prevent contractures is part of the regime. Muscle reeducation is begun as early as feasible. Later the patients capable of it commence

ambulation training, and for those who are permanently and severely disabled, every effort is made to aid them in independence, as for instance in putting on their braces, in transferring themselves from bed to wheelchair, in getting up without aid from the floor. This will reduce the assistance needed from members of their family to a minimum.

The occupational therapist may begin her work almost as early as the physical therapist does. During the phase of acute illness, when the patient may be drowsy and feverish or even disoriented, and during later episodes of acute distress, occupational therapy is counter-indicated. This stage is not necessarily coextensive with the customary two-week period of isolation, but may end sooner or continue beyond the necessity to employ isolation procedures.

During the sub-acute stage, when fever has subsided and the patient is eating and breathing reasonably well, the principal aim in treatment is to reassure the patient, maintain rest, and reconcile him to his illness. Among subconscious material found in polio patients on psychiatric examinations[9], the shock of a disabling illness is deepened by a very reasonable fear of death. A friendly and matter-of-fact approach on the part of the therapist, anchoring the attention of the patient on the minutiae of his surroundings and carrying it beyond the ward to his friends and family, eases unconscious worries often enough to help establish a more hopeful attitude. Media employed during this period are mental activity and passive participation. Reading books projected on the ceiling is one practicable means, varied for some by music and usually by conversation therapy. For some, because of extreme paralysis, mental activity may be practically the only outlet even after a considerable period of time spent in the hospital. It is important for these patients to initiate activity and extreme adjustments may be made by the therapist to make it possible for instance for the patient to write a letter.

Figure 1 shows one such adaptation. While writing is in this case virtually a manual form of dictation, the effort has been found to reassure and benefit the patient.

The convalescent patient enters a stage when his problem is to maintain tone, both physical and mental, while he works daily towards the goal of improvement in strength and coordination. For uninvolved extremities, showing no spasm, weakness, or incoordination, light physical activity may be psychologically stimulating, and projects are planned to relate the patient to his family and his future. For the pregnant mother with the three-year-old at home, a papier mache ball of durable but light construction offers a way that she can work off her concern about his care during her absence by making a tangible contribution to his playtime activities. A minimum of apparatus is desirable in treatment activities for patients who are being given hot packs, and careful attention should be paid to their position in bed. These patients are usually supine and may or may not have their feet against the footboard depending

Fig. 1.

on the degree of spasm about the ankle joint. Later they may be allowed to sit supported for limited periods, perhaps at first only for meals, and this new position at once widens the span of activities available for treatment purposes. Determining factors are strength and balance of spinal and abdominal muscles and those controlling respiration.

Involved extremities should be treated in occupational therapy only when the patient can recognize and perform coordinated motions. Once this pattern has been reestablished through treatment in physical therapy, repetition of the motion in occupational therapy is desirable. It is important, however, to stop at once if the patient is substituting strong muscles for weakened ones, or if incoordination recurs. It is here the occupational therapist finds herself most dependent on close observation of the patient, and patients are best treated wearing very little clothing so that their motions can be observed. Substitution is likely to occur when fatigued weak muscles cease acting, and the patient then attempts to make the motion with the remaining synergists, distorting the direction of the pull. Incoordination on the other hand, while also manifest in function, and bearing closely on future efficiency, is due to a disturbance produced in the nervous system by the disease. The normal process of reciprocal innervation is upset so that nerve impulses to contract spread also to the antagonist causing it to contract instead of relax, and this results in awkwardness and sometimes in blocking of motion.

Fatigue is important and should be avoided in the early stage of treating poliomyelitis. Until the pathology has reversed itself, and anatomical and physiological continuity has been reestablished, over-exertion may decrease the ability of weak muscles to react.[10] Recent studies bearing on this point reopen the question of the possibility of peripheral pathology in poliomyelitis.

Another good reason for avoiding the use of heavy resistance, especially in the early stages is the encouragement given to substitution. Lacking endurance, a fatigued patient may substitute a strong for a weak muscle, often one that is poorly placed for the pull desired, and a distorted pattern of muscular activities result that may become a habit. Some years ago, a three year old post polio out-patient, of another hospital, with weak hip flexors on the left side, developed the tendency to rotate his leg outward, drawing it forward probably with the sartorius, while he kept his knee straight, so that in walking he led with the right and dragged the left foot to it. On a jungle gym, however, he could climb rapidly, with his foot pointed forward, obviously using the hip flexors alternating with the extensors, and in this position the hip extensors are better placed to act reciprocally with the flexors. Flexible bracing is receiving some emphasis in the care of these patients. A twister or wide elastic band was ordered by the orthopedist. This passed around his leg, flexible and unrestricting, and exerted just sufficient pull on his shoe to point his left foot forward, helping to settle him in the correct position for walking. It was not too long before use of his muscles in this position strengthened them so that the elastic band could be removed.

It has also been demonstrated as I mentioned[11] above that if the patient is given too great resistance, incoordination will occur. The grading of activity to avoid the effects of fatigue on function is as important to the therapist treating these patients as is her knowledge of anatomy.

Activities are graded to improve the patient in coordination, power, and endurance, and the ways of doing this are not new. For training in well-coordinated, smooth and easy motion, the action of muscle groups, implicit in the activities we use, begins first with the simple action of agonist and antagonist about one joint. Gradually other motions and muscle groups are brought in, adding complexity, while maintaining smooth motion. Very light activities will serve best in this stage.

As for the treatment of the third observed symptom, "mental alienation," we are not yet in a position to assess early which of various paralyzed and weakened muscles are so because of a physiological block interfering with motor impulses coming down the pyramidal tract from the cortex and

Fig. 2.

may recover function, and which are the ones whose innervation is permanently lost due to destruction of the anterior horn cell.

A non-functioning muscle is the province of the physical therapist, who attempts to restore to the patient's consciousness an awareness of how it feels when it works. The treatment of a so-called "alienated" muscle involves use of the stretch reflex pulling gently on the tendon (several times) and getting the patient to think of the point of insertion in the effort to pull there. Reflex contraction repeatedly obtained is often the beginning of a patient's later regaining cortical control. Muscles that will respond reflexively have an intact anterior horn cell, but may be temporarily disconnected from voluntary control by the brain. Muscle re-education in physical therapy is done for agonist and antagonist in alternation, not just the flexors or extensors alone.

An alienated muscle may be activated with a group when it still cannot be contracted voluntarily, as in the case of the quadriceps of the teenage boy mentioned above.

Provided the patient is well aware of his motions, very weak muscles can be exercised with sling support in occupational therapy. Often one of the earliest activities for arms is some version of self-feeding. By definition, poor muscles will contract in a horizontal plane and fair ones against gravity. With the extreme variations in muscle power in adjacent areas that is characteristic of poliomyelitis, the weaker muscles about the joint often determine the position of working in occupational therapy.

The photograph above (Figure 2) shows slings which make it possible for the patient to write or feed herself. This same patient for many months fed herself while lying on her side to avoid distress in breathing.

Increase in power and endurance is still a vital factor in the chronic stage of the disease. The pa-

Fig. 3.

tient in this picture (Figure 3) had her work graded for endurance by decreasing rests and increased working time. She was also on a strenuous program of exercise in physical therapy and within six months developed power in essential shoulder muscles from zero and trace through poor and fair, to good and normal. To the patient with lower extremity paralysis, strong arms may mean the difference between confinement to a wheel chair and locomotion by means of crutches and braces including the ability to negotiate ramps and stairs, which widens his span of educational and social opportunities. Too few public buildings are yet provided with an entry level with the sidewalk, negotiable from a chair.

Following a period of intensive treatment for about a year in a hospital, if a patient still has disabilities, all those working with him concentrate on helping him attain the most efficient possible functioning with the muscles available. It is a period of adaptations, of developing ways to accomplish independence in feeding, communication, dressing and ambulation—ways that will work towards a more satisfying creative life for him. One of these patients seen in the picture below, is developing resources to counteract the situation in which he finds himself by writing verse and drawing. The appearance of some of his verses in print have proved quite a stimulus to him psychologically.

Evaluation of the patient is the main key now. If employment is feasible for one of his age and physical abilities, interest and aptitude testing by a clinical psychologist is a pertinent procedure. Observation of personality traits and awareness of potential emotional problems as well as sources of motivation by the occupational therapist who is working closely with the patient contribute by helping to shape up the plans for his future. In the physical sphere, training to be independent in "functional activities" or the "physical demands of daily living" now assumes primary importance. What is the patient's ability, present and probable, to accomplish self-care? Personal independence in the matter of eating, shaving, combing hair, ability to put on clothes and braces, while often slow, gives an essential feeling of achievement and will free the family from many hours of physical care. Practice in the most efficient means for the patient will take him far, and mechanical aids such as holders for utensils or support for a forearm may bring the operation within the reach of some who would otherwise have to remain dependent. (Figure 4).

Help with these hand skills is in the realm of the occupational therapist who rigs slings for feeding, pencil holders for writing, and devises toys that can be operated with a minimum of muscle power. A harmonica hung in place around the

Fig. 4

patient's neck, such as those used by a one-man band, furnishes one resource for fairly helpless young patients,[12] and will supply both interest and achievement while strengthening the patient's respiratory musculature.

Preparation for walking may require the overdevelopment of some arm muscles, and here the occupational therapist will concentrate on shoulder girdle depressors, muscles for grasp and stabilizers of the wrist, as well as the elbow extensors. Work on the lathe, even from a wheelchair, for patients able to come to the workshop is an interesting means of building power that will help prepare the patient for getting around. Meantime a strenuous program of mat activities and resistive exercises in physical therapy, coupled with daily practice in the maneuvers usually needed, put the patient well on his way to coping with life on his own.

This is the stage, too, when activities relating to a future job can be emphasized, and interest built up in occupational therapy. The test results will be particularly important in ensuring carry-over of

arrangements after discharge from the hospital. Attitudes must be built up to fortify the patient against reactions he is bound to meet and be astounded at, such as a 17-year-old's first unsolicited sale of a homely piece of work to a charity buyer. Maybe the taxi driver who brings him for treatment offers an exorbitant amount. The possibilities of exploiting one's handicap, first evident in such an experience, must be counteracted by a whole series of interpreted events such as a visit to a store outlet, discussion of percentages, figuring of the worker's time and costs, leading to the foregone conclusion that the sale of leather products is hardly worth his time—time he could better invest in furthering a badly needed education.

Emphasis in this period should be on the positive, for instance what the patient with three flail extremities (see figure 4) can do. Every effort should be made to line up the patient's thinking with attainable goals, and projects in which progress is self-evident will aid, remote as it seems, in acceptance of and adjustment to a permanent handicap.

Assuming that he is going home, it is better to foresee early the readjustment that will be necessary as soon as he leaves the shelter of the hospital. He should be relieved of unexpressed anxieties, hostility and fear by psychiatric means before returning home. It is obvious that he will be under stress, met with varying degrees of efficiency depending partly on his personality before illness but much on his contact with people in the hospital during his stay, and their reactions to his behavior.

Depression and resentment are two possible responses to the situation in which he finds himself.[13] A valuable corrective is in the attitude of the family who should be encouraged in a frank acceptance of the handicap. The topic should nor be avoided, nor the difficulties minimized, and regret while natural will do no good. On the other hand, indulging the patient will also cripple him psychologically. The family needs guidance and understanding in order to steer a middle road. Depriving a crippled child of any opportunity for effort and achievement may be as harmful as neglect. The patient too should have help in meeting his problems, and a firm expectation that he will handle them well. The physical limitation is unavoidable. By developing satisfaction through real achievements, he can become a normal person in every other way.

REFERENCES

1. Pohl and Knapp: *Kenny Method of Treatment for Infantile Paralysis.* National Foundation for Infantile Paralysis, 1942.
2. R. Plato Schwartz, M.D., Harry D. Bouman, M.D. and Wilbur K. Smith, M.D. *Journal of the American Medical Association,* 126:11:695, 1944.
3. Ibid.
4. Lloyd, D.P.C. *Journal of Neurophysiology,* 9:439, 1946.
5. Hirt, Susanne: "The Relation of Physical Therapy and Occupational Therapy in Problems of Flaccid Paralysis." *American Journal of Occupational Therapy,* Vol. II, p. 79, 1948.
6. Schwartz, Bowman and Smith, op.cit.
7. Hirt, Susanne, op.cit.
8. Bodian, David: "The Paralytic Plague," *Scientific American,,* Aug. 1950.
9. Kant, Fritz, M.D. Address on "Psychological Problems of the Polio Patient and his Family" given before a post-graduate medical institute on Diagnosis and Treatment of Poliomyelitis, August 1949, University of Wisconsin Medical School.
10. Robert L. Bennett, M.D., address on "The Use of Occupational Therapy in Poliomyelitis," Annual Conference of the American Occupational Therapy Association, Glenwood Springs, Colorado, October 1950.
11. Some of the patients of the Rockford, Illinois epidemic, 1946.
12. Stuart, Frances T., O.T.R., former director of occupational therapy, Wisconsin General Hospital, Madison, Wisconsin.
13. I am indebted for material in this section to Dr. Fritz Kant, Professor of Neuropsychiatry at the University of Wisconsin, op.cit.

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ARTISTIC SELF EXPRESSION OF PSYCHOTIC PATIENTS

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The treatment value of creative self-expression, for mentally ill patients, has come to be realized by most therapists. However, there are conflicting opinions as to the manner in which it should be elicited.

Recent developments[1] in modern psychiatry have lead many to favor the expansion of individualized projective techniques through which inner drives may be given outward expression. Other therapists[2] believe that if mentally ill patients are encouraged in free expression their psychotic aberrations are thereby motivated to increase deranged thinking and activity.

It is the purpose of this paper to describe the relative therapeutic value of a *guided creative program* of self-expression, as compared with delusional self-expression of the psychotic patient. This guided creative approach is utilized only as a supplement when it is integrated with a sound psychiatric program of other special forms of therapy. Taking into consideration the advantages of spontaneous creativeness, and also the fact that absorption in a healthful activity tends to dispel disorganized thought, our objective is to create an interest channel to serve as an outlet of creative abilities which are socially acceptable. Rather than the application of either of the two extreme methods of art work—spontaneous free expression —or controlled technical creating, our guided creative method is a compromise effected by combining the positive advantages of these two opposing techniques.

Graded training (i.e., graded instruction) in creating specific products, is regarded by some therapists[3] as an important means of controlling as well as disciplining the disorganized impulses of disoriented patients. "Free expression" on the other hand is described as follows by Margaret Naumberg:[1]

> "While full credit must be given to occupational therapy for what it has accomplished with mental patients, there remains an important area in the development of spontaneous creativeness as a means of diagnosis and therapy which it has not entered. For when emphasis is placed on the expression of the patient's personality through his art, and not on any technical proficiency attained, it helps to release unexpected capacities which brings confidence and provides satisfaction; and to the psychiatrist, it offers a revealing projection technique for both diagnosis and therapy. When the patient has been helped to overcome his inhibitions and is able to express his deepest fears, wishes, and fantasies on paper or in clay, he is tapping the unconscious in the symbolic language or images which will often bring to the surface what he dare not or cannot say in words."

The guided creative method is planned to encourage original expression of a realistic stimulus individually chosen by the patient. In this way interest in reality can be reawakened and the patient gradually surrenders his world of fantasy. Normal responses again appear.

The patient's own choice and his modification of the actual subject can in itself serve as a diagnostic device.

The schizophrenic, having experienced painful associations with reality, rejects his contacts with realism and withdraws into a preferred fantasy. The spontaneous creative work of these patients usually connotes a chaotic abreaction and a distortion of realities. Unsolicited love, mutual trust, and propinquity are required to lead these patients back to the acceptance of reality and inter-personal relationships. We strive for this goal by directing their attention to objects that might serve to stimulate their remembrance of interest and pleasure, and therefore to encourage their expressive creativeness.

A wide range of materials calculated to stimulate new interest is made available in the occupational therapy clinic. These materials include animal pets, such as dogs, cats, rabbits and mice. Also easily accessible to the patients is an "Inspirational File" which is a brightly decorated open file containing folders of illustrated subjects, such as flowers, people, animals, music, architecture, and mechanical devices. Many times the discovery of a patient's interest through the use of realistic subjects releases his resistance and tension, and he is able to express himself verbally as well as artistically.

During a patient's first few occupational therapy sessions he is encouraged to express his inner feelings without suggestions or guidance from the therapist. Often the patient may reveal a clue to his inner drives and interests. One 19 year old catatonic patient completely covered the drawing paper with music notes for three successive occupational therapy sessions before he began discussing his interest in music. He constructed dishes in clay and decorated them by carving musical scores on them, thereby achieving some satisfaction for

both creative ability and his musical interests. He had not had music lessons and expressed a desire to attend music classes. Shortly after this time he entered into music sessions with enthusiasm, revealing latent ability.

Patients who have shown no desire for contact with people have been seen to respond to a live animal. On one such occasion the live dog in the occupational therapy clinic seemed to arouse a patient who had been in a catatonic stupor for a period of two weeks. When the dog approached him he petted its head and uttered a phrase about how much he liked big dogs. The following day he began modeling a replica of the dog in clay.

An agitated patient could not be coaxed from his daily modeling of skulls, crossbones, and reptiles until the kitten in the clinic began to attract his fancy. He modeled the kitten in capricious poses, displaying exceptional spontaneous ability. Having gained pleasure from the praise of his ceramic skill, he became more sociable and revealed a keen wit.

One acutely disturbed patient was pummeling the walls with his fists when he noticed the kitten, which he picked up and quietly fondled for the remainder of the occupational therapy period.

A sullen paranoid patient refused occupational therapy activities until he volunteered to design and make an elaborate collar for the dog. He worked diligently for two weeks making the collar.

Patients who show no interest in ceramics will almost invariably, upon suggestion, be willing to create a leaf dish by patterning it from one of the varied natural leaves displayed. Frequently a world globe and maps attract nonconversant patients who gradually begin conversing by being asked to point to locales with which they are familiar.

The process is not one of simply placing an attractive object before a patient and receiving an immediate response. It sometimes requires many days of gentle persuasion and the offering of much experimental stimuli before a dormant interest is aroused. Sometimes the embittered patient's interest is captured when reproductions of paintings and life stories of famous painters who were psychotic are presented to them, i.e., Vincent Van Gogh, Modigliani, Richard Dadd, William Blake. Many patients who had no previous art training or experience show exceptional ability under such a stimulus. The probability[4] is that either new environmental conditions, changes in the emotional structure, or both, release a latent talent which had not been allowed to manifest itself in the prepsychotic days of the patient.

One hebephrenic patient (see illustrated "B" series) during his typical world salad verbigeration, observed a twisted vase handle and said, "Gee! I like French bread." The following day we arranged a still life display which included a loaf of twisted French bread. He responded enthusiastically and, while painting it, discussed instances in his childhood of which the bread reminded him. This patient frequently renders a delusional painting, but when presented with an interest stimulus paints a realistic picture during the same occupational therapy period. The significance of his reaction is that he speaks intelligibly when painting in reality; whereas when he renders a delusional painting his conversation is unintelligible.

The objective of this program is not so much a searching out of symbolic analysis as it is the striving for the patient's free expression in a socially acceptable manner. It also strives for the restoration of the patient's self-confidence in reality. This does not mean that the method is opposed to full uninhibited expression nor, on the other hand, do we encourage the patient to copy. "Copy" is never used in conversing with patients. The objective is better served by such suggestions as, "Paint it the way that you feel about it." Each patient's choice of art work is mounted on the occupational therapy clinic walls every week, and all are encouraged to express their attitudes toward their own as well as other patients' work.

There has been a good deal of uncertainty among therapists working with mental patients as to whether a patient derives more benefit from the free catharsis of delusional creativeness or from individualized and realistically stimulated expression. We have applied both approaches in occupational therapy treatment of neuro-psychiatric veteran patients for over a period of three years, and feel a real conviction that a far greater success is derived from the guided creative program of self-expression. We base our opinion on the patients' responsiveness, pleasure, and general improvement. Psychotic patients' artistic creations serve as tangible proof of Wolfgang Born's statement,[4] "Empathy can be termed as an artist's emotional uniting with the realistic world."

REFERENCES

1. Naumberg, Margaret: "A study of the Psychodynamics of the Art Work of a Nine Year Old Behavior Problem Boy." *Journal of Nervous and Mental Diseases*, January, 1945, pp. 28-64.
2. Hayworth, N. A. and McDonald E. M.: *Theory of Occupational Therapy for Students and Nurses.* Williams and Wilkins, 1941.
3. Anonymous, "Art of the Insane". *Ciba Symposium*, Vol. 7, Jan. 1946.
4. Born, Wolfgang, "Unconscious Processes in Artistic Creation." *Journal of Clinical Pathology*, Oct. 1945, pp. 253-273.

Case Histories

Patient: A.
Diagnosis: D. P. Hebephrenic
Age: 25 yrs.

This patient was restless, irritable, and an "elopee." He was not interested in occupational therapy and refused to take part in any activities. After a one month period of just observing the other patients working he

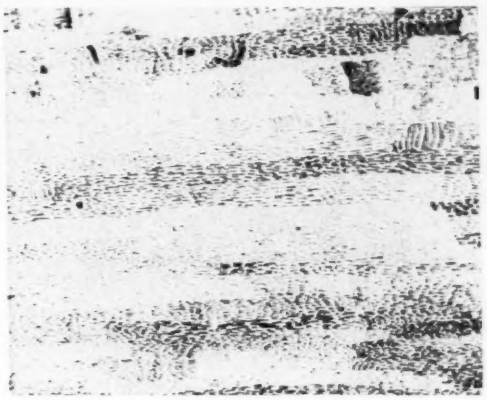


Fig. 1

began to methodically fill the painting paper with tiny dashes. His comment regarding that was, "I must fill this paper with 10,000 dashes." (Fig. 1) He could not be dissuaded from this repetitious marking for three O. T. sessions until finally he responded when the Pointillist painters of the Impressionists' period (artists who painted in myriads of colored dots) were explained to him. When he became interested in the fact that famous painters actually applied this fundamental method themselves he finally compromised by charcoal-sketching a displayed horsehead vase with peach blossoms; however, it was outlined with the dashes. (Fig. 2)

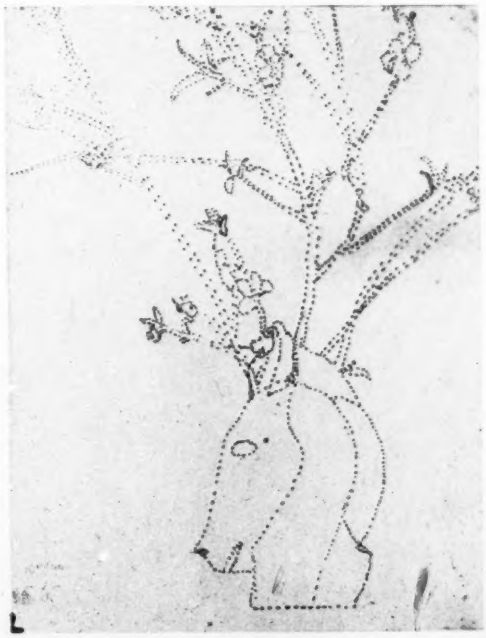


Fig. 2

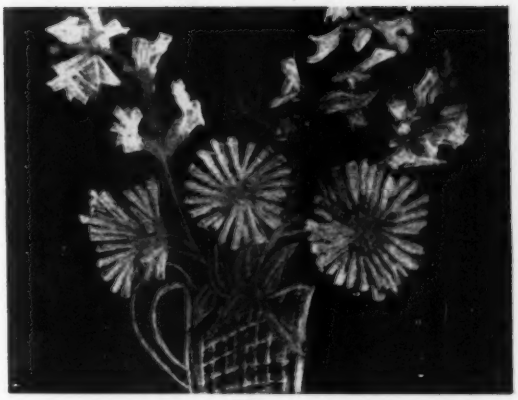


Fig. 3

Having responded to the praise and encouragement he took more interest in general O.T. activities and requested art books and guidance in painting in oils. Figure 3 is the first charcoal sketch in color in which he completely relinquished the dashes. Figure 4 is his first oil painting. He worked from a colored photograph of an Indian and rendered it in his own improvised style. While rendering the painting he asked an Indian patient to pose for him. Since that time he has not returned to his former compulsive dash method.

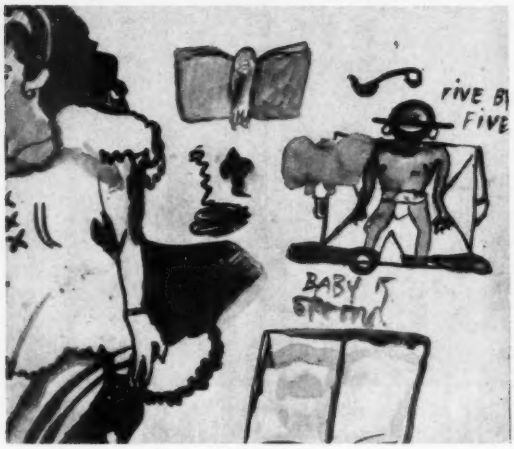
Fig. 4

He is home on a trial visit now and has continued his painting as a hobby.

This patient had not had previous art training. He does not reveal exceptional talent but this art experience was a device that stimulated and held his interest in reality after eighteen months of previous hospitalization.

Patient: B.
Diagnosis: D. P. Hebephrenic
Age: 28 yrs.

This patient painted in a confused and non-objective manner for a period of one month. Later actual flowers and models (realistic stimuli) were brought into the



Fige 5

O.T. clinic. This new device aroused his interest, stimulated his concentration and, above all, projected his thinking processes out toward reality.

He worked in a spontaneous manner. The water color painting of the dogs was rendered in ten minutes from a photograph that he chose. He worked without restraint and responded well when painting flowers and animal life. He remarked, "The happiest time in my life was working on the peaceful farms." He painted Figure 5 just ten minutes before painting Figure 6. Figure 5 is typical of the many confused paintings which he rendered before realistic ideas were presented to him. Referring

Fig. 6

to figure 5 he said that it was his "war confusion." During the war he was in active combat service in the North African theatre where he became mentally ill.

The significance of this patient's remarkable contrast of the two paintings is that when he paints delusional confused pictures his conversation is also irrational and confused; however, when he paints a realistic subject which holds his interest his conversation is lucid.

Patient: C.
Diagnosis: D. P. Paranoid
Age: 34 yrs.

This patient was non-conversant and constantly paced the floor, preoccupied with his accusatory hallucinations. For two months he did not respond to occupational therapy activities .When a record player was brought into the clinic he began to paint large colored washes

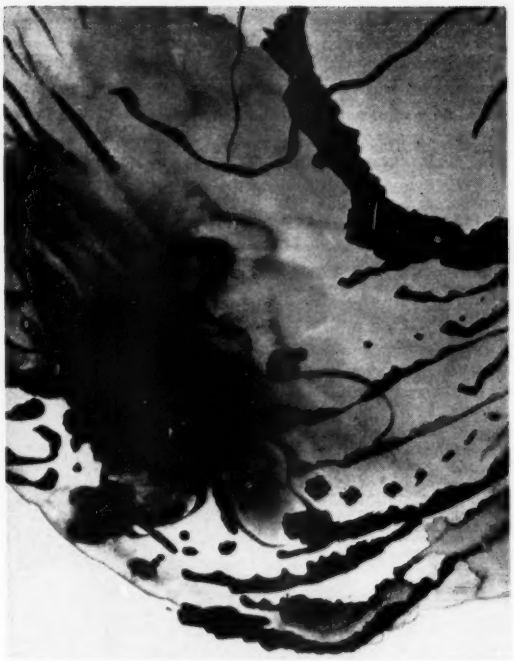


Fig. 7

and laminating daubs of contrasting colors which varied according to different types of music played. When the therapist asked him if he could possibly be painting the music he responded skeptically, "How did you know?" This was his first response to the therapist. He was reluctant to discuss it any further until we were able to convince him that there is an accepted scientific theory

Fig. 8

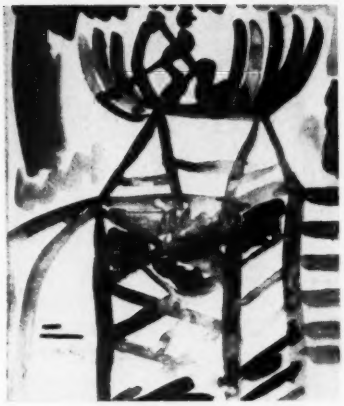


Fig. 9

of colored hearing which is "chromesthesia." We were able to convince him by bringing in books and illustrations pertaining to "chromesthesia."

He began a series of symphonic paintings, requesting his choice of music and discussing at length his interpretations. (Fig. 7 and 8.) During this gradual responsiveness he became more relaxed and confident, and his psychotic symptoms markedly diminished. Prior to this time he was on "eloper" status for nine months, but now was transferred to an open ward where he steadily improved. He is now home on a trial visit and is planning to resume his musical career as a cellist.

The significant factor regarding this series is that

Fig. 10

the theory of chromesthesia served as a realistic stimulus in enticing this patient back to realistic interests. After C improved he lost interest in "colored-hearing" painting and said that he no longer felt the need to express himself in this manner now that he could resume his music work.

Fig. 7 is the patient's interpretation of Korsakoff's Sheherazade. The background wash color is cerise with various shades of red-blue laminations.

Fig. 11

Fig. 8 is the patient's interpretation of Beethoven's Piano Concerto. The colors are complementary — yellow background with blue linear laminations.

Patient: D.
Diagnosis: D. P. Paranoid
Age: 32 yrs.

This series portrays a patient's progressive improvement while undergoing electric shock treatment.

D, a school teacher, had not previously painted, but his father had been an artist in Italy before the family

Fig. 12

migrated to America. This patient spent a short period in a state mental institution prior to his military experience. After service discharge he and his wife separated and he began manifesting psychotic characteristics. He was arrested and committed to the veterans hospital.

Figure 9 was painted after the patient's first shock treatment which shows his confused state of mind. It is rendered in "hot" colors of red, orange, and magenta hues, without realism. His comment regarding this picture was, "It was intended for General Bradley so I want it on the wall before he arrives."

Fig. 13

After his third shock treatment he was more relaxed and responsive. He was given a book of world famous painting reproductions and was asked to choose a painting that he particularly liked and to express his feelings for it. This is the first of his transition toward realistic thinking. He painted the "Angelus" by Millet. He deviated from the original by painting the woman figure humbly kneeling instead of in the standing position. (Fig. 10).

Figure 11 is one of a series of butterfly paintings that he completed after discontinuing his shock treatments. Having been a biology teacher he was familiar with entomology. Since his discharge he has continued his painting as a hobby and relaxation device.

Fig. 14

Fig. 15

Fig. 16

Patient: E
Diagnosis: D. P. Simple Type
Age: 24 yrs.

This patient was an introverted child who spent most of his time in reading and drawing. His parents were divorced and he lived alternate years with his father and mother. When 23 years of age he married and thereafter supported his wife and child comfortably until entrance into service. After service-discharge he was restless and could not adjust to civilian life. He wanted to begin an art education; however, his wife disapproved and threatened to divorce him. At this time he began to reveal psychotic symptoms of depression. He was committed to

Fig. 17

the mental hospital and did not show any improvement after a one month stay.

In the O.T. clinic he modelled a double figured piece which was proportionally detailed but the faces were without features. (Fig. 12) His comment regarding it was, "It is a funny futile story about a psychiatrist who is trying to console the patient." When asked why he did not delineate the faces and features he said, "It is impossible because it is not reality." It was suggested that he sketch or paint but he said that he did not want to be an artist. After a few days the live kitten at the clinic caught his fancy and he began to sketch it in various poses. During this period he became more responsive and friendly. He asked the attendant to pose with the kitten for a portrait. (Fig. 13) This is a charcoal-drawing completed in just 20 minutes. This patient revealed exceptional talent and as he became more confident he drew a series of patients' portraits, always completing the expressions and features.

He is now making a good adjustment on a trial visit and he intends to resume his art education.

Patient: F.
Diagnosis: D. P. Paranoid
Age: 23 yrs.

This patient is an American Mexican who was unable to adjust to civilian life after two years in the army. He could not hold jobs for more than a month at a time and became seclusive and suspicious, saying that "people talked about his face wherever he worked."

He was committed to the hospital and for a period of four weeks he was non-conversant and seclusive, his only O.T. activity being absorption in sketching profiles which resembled his own features. (Fig. 14.) Later he became more responsive and was persuaded to sketch and paint. He chose a still life display which was a negro bust and a pine cone sprig. This was the first interest that he showed in a realistic stimulus. (Fig. 15) He responded well to praise and was then asked to paint something that would make him feel happy—which is the tranquil bull (Fig. 16) He then discussed in detail the bullfights which he had attended and also expressed a desire to model bullfight characters in clay. A copy of *Ferdinand, The Bull* was given to him which inspired a series of these figurines which he created. They displayed exceptional rhythm and conventionality. His pieces were displayed, and the recognition which he received, as well as the pleasure from creating them seemed to instill more confidence and trust. (Fig. 17)

He improved progressively and was granted a trial visit.

In order to stimulate this patient's creative expression he had to be reached on his own level of his narcissistic pre-occupation and thereby gradually encouraged toward outward interests.

MENTAL EVALUATION OF THE APHASIC CHILD

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There appeared in the June, 1950, issue of this journal an article by Dr. Martin F. Palmer,[1] describing the symptomatic phenomena associated with the language disorder called aphasia. This was followed the succeeding month by an article by F. M. Giden, M. L. Eno and E. C. Bosley,[2] in which the phenomena of the aphasias were discussed in terms of the problems they present to the occupational therapist. The problems facing the psychometrist in dealing with aphasic children are similar to those of the occupational therapist in that he, too, must enter into language interactions with the child at a propositional level which, unless handled with extreme caution, can force the child into catastrophic reactions which can not only disrupt the rapport of the immediate situation but also negate much of the progress toward rehabilitation which the child has hitherto achieved.

At the Institute of Logopedics, the concept of "I. Q." in the psychometric examination is abandoned for all but statistical purposes. The aid of the examination is the acquisition of an overall picture of the aphasic child's performance repertoire when the child is functioning at his best level. In order to obtain maximum performance from the aphasic child, it is necessary to conduct the examination in such a manner as to circumvent or avoid as far as possible the phenomena of aphasia which would ordinarily occur when the child is put under environmental pressure. If these phenomena are successfully avoided, it is possible to gain a fairly clear picture of the child's maximum abilities and, in some cases, to distinguish between failures at specific tasks which are due to inadequacies of intellectual function and failures assignable directly to the aphasic condition of the child. We must emphasize here that, in the attempt to elicit maximum response patterns from an aphasic child during a psychometric examination, deviations from standardized testing procedures are often necessary. These deviations, naturally, invalidate the "score" aspect of the test results. However, a test score should be merely an incidental result of a good examination. The central purpose of the psychometric examination should be the illustration of the child's modes of performance—not "How much does he know?" but "What does he do, and *how does he do it?*" We learn a great deal more about a child from the way in which he approaches a problem than from the score he makes on a test. As we shall attempt to illustrate later, the mode of performance can be the key to the differentiation between the child whose relatively normal intelligence is masked by aphasia and the child with an endogenous, or true mental defect.

Inasmuch as testing and training situations are similar in that they both involve language interactions between the child, the instructor and the work materials, techniques for attaining maximum performance are in many ways applicable in both situations. In the following paragraphs we shall attempt to illustrate some of these techniques by abstracts of occurrences from actual test situations.

One of the characteristics common to all types of aphasia is that it is a propositional disorder. The degree of propositionality of a language situation depends, in part at least, upon the importance of the situation to the individual and the degree to which the individual is emotionally involved with the particular set of ideas or references indigenous to the situation. For this reason, testing and training situations should never be permitted to threaten the child's sense of security. As far as possible, the clinician should give the child a feeling of success for each of his attempts, even where the attempt is classed as a failure for scoring or measuring purposes. The "that's wrong" reaction on the part of the clinician should be avoided at all times. When the writer asked Beverly, a ten-year-old aphasic girl, to place four wooden cubes into a box, she responded by putting five cubes into the box. "M-hm," the examiner said, removing the cubes from the box, "now show me five." Again Beverly put five cubes into the box. "Good," said the examiner, "that's five—see, 1, 2, 3, 4, 5—now show me four." This time Beverly responded by putting four cubes into the box. A recheck several minutes later showed that Beverly no longer confused four and five. In this situation, a desired response was elicited; a very small amount of teaching was done; and the child was never aware of the fact that she had made a mistake. Had the child been made keenly aware of her error, the rapport between the child and the examiner might have been broken, and the examination probably could not have been continued at that time.

Another characteristic of aphasia is persevera-

tion which occurs when the individual faces a situation in which he feels that failure is imminent, or where his powers of discrimination are overtaxed. Perseveration, then, is always a signal that the child is being pushed beyond his ability to cope with the situation at that moment. When eleven-year-old Freddie was asked to copy a line and a cross from a printed card, he did so quite readily. However, upon being requested to copy a circle, his performance was accompanied by twitching of the left eye and notable tremors of the hands. When, next, he was asked to draw a square, he again drew a circle. A third circle was drawn when he was requested to copy a diamond. At this point, the examiner withdrew the printed cards and returned to the picture-choosing test which Freddie had successfully passed earlier in the examination. After several moments, Freddie regained his composure and the form-copying test was resumed, and several additional forms were drawn before perseveration occurred again.

Aphasic children frequently show a strong desire for spatial order and temporal rigidity. Children displaying this symptom react unfavorably to spatial disorder. When Merna, age eight, entered the testing room and seated herself at the examining table, her first spontaneous act was to remove two small scraps of paper from the table and to take them to the wastebasket at the other end of the room. During the picture-naming test, the examiner laid the picture cards rather carelessly on the table after each was named. As each card fell to the table, Merna picked it up and placed it neatly in a pile, with its edge lined exactly parallel with the edge of the table. Noting this, the examiner picked up the cards and placed them in their proper place in the box containing the test materials. As each item was used, the examiner replaced it in the box. As the examination continued, it was noticed that Merna was becoming tense and fidgety. During the remainder of the examination Merna was permitted to replace the materials herself, and her tension decreased considerably. Apparently, this little "side activity" which allowed her to satisfy her characteristic desire for orderliness was an effective tension reducer.

Mike is singularly attentive to temporal order and sequence. A very large part of Mike's conversational pattern consists of items related to time and number: "How many days until Sunday?" "What's your house number?" "Is a thousand more than a hundred?" "What time is it—?" When seen in the testing room for the first time, Mike repeatedly interrupted the procedure with questions: "In how many minutes can I go?" "How many more things do I have to do?" The examiner attempted at first to parry such questions with vague stereotypes such as "Oh, pretty soon now," or "Just a few more." This was unsuccessful. Mike still wanted to know exactly how much longer and how many more. At the beginning of the next examination session, the situation was introduced to Mike in the following manner: "See, Mike, it's now fifteen minutes after eleven, and we'll work here until twelve o'clock; then you can go home and eat lunch. Now we have to do these ten games (pointing to the ten test items lined up at one end of the table) before you can go." As each test item was completed, Mike was permitted to place it in its proper place in the material box. Throughout the forty-five minute period, Mike repeatedly reassured himself by counting the items on the table. However, he asked none of the time and number questions that he had asked so repeatedly during the previous examination. By structuring the examination into a time and order frame of reference which was in keeping with Mike's usual mode of interaction, his irritability and distractibility were reduced to a minimum; and therefore his test performance was of a much higher quality than it had been in the previous examination.

The hyper-irritable attention reactions of aphasic children often present a serious block to the conduct of a psychometric examination. Children displaying hyper-irritable attention are overly sensitive to extraneous stimuli not directly associated with the immediate confines of the testing or training situation. It must be noted here that hyper-irritable attention does not mean poor attention or lack of attention. It means that the child's interactional set for responding to a given field of stimuli can easily be disrupted by stimuli from other fields. Thus, noises coming from outside of the training room or shadow and light patterns from sunlight coming through windows or Venetian blinds may often impinge upon the child's central field of attention and considerably diminish the quality of his performance. In such cases, it is wise to arrange the training room in such a manner as to exclude all stimuli not directly associated with the training or testing situation. With quite a large number of children, test performances were improved considerably by conducting the examination in a small, dimly lighted room with only a table and two chairs and the immediately needed test material, rather than in the regular testing room with its numerous pieces of furniture and profusion of apparatus and equipment.

Propositional difficulties, disorders in categorical behavior and abstracting ability, apraxias and agnosias, and initiatory delay and confusion are characteristics of aphasia which make it extremely difficult to differentiate psychometrically the aphasic child from the mentally defective. However, in some cases, deviations from standard pro-

cedures enable the examiner to obtain a much fuller picture of the child's performance abilities than would be obtained if the standard procedures were adhered to. Of course, deviations from standard procedures invalidate any score that might be obtained from a given test; but, as was previously stated, we are not interested in test scores but rather in overall performance patterns.

Very often, by reducing the propositionality of a test item, we are able to get a clearer picture of what a child can do. Ten-year-old Don, who has quite a bit of spontaneous speech, stared blankly and silently at the Binet Picture Vocabulary cards as the examiner showed him each card and said "What is this?" However, when the examiner laid all the cards on the table and said "Show me the bed—the chair—the house, etc.," Don selected the proper card through the entire series, thus showing that these nouns were part of his vocabulary even though he could not produce the words at a high propositional level.

Aphasic disturbances in categorizing ability are easily mistaken for mental deficiency. Here again, re-structuring of the test problem can sometimes alter the quality of the child's response. When Teddy was given three boxes and asked to place all the wooden cubes in one box, triangles in the second, and spheres in the third, he responded by turning away from the examiner and shaking his head "No." When pressed to perform, he indiscriminately scooped up handfuls of the forms and dropped them into the boxes. At this point the examiner removed the materials and returned to a block building game that Teddy had enjoyed earlier in the examination. After several moments the form grouping problem was presented in a different manner: Placing only one box on the table, the examiner put a cube into it and said, "Now I want you to put all of this kind in the box." With the complexity of the situation thus reduced, Teddy performed adequately, later also selecting out the spheres and triangles.

The aphasic child's expressive difficulties sometimes lead to bizarre language reactions which give the examiner quite a bit of difficulty in determining whether such reactions are indicative of mental deficiency or due mainly to the aphasia problem. Three channels of solution are available here. First, where the overall test performance has given many hints of adequate intelligence, specific absurdities in verbal expression can usually be attributed to the aphasic condition.

Second, it is sometimes possible to "dig out" the logic behind an apparent absurdity. A very simple example of logic hidden in an apparently illogical reaction was Mike's first experience with the Holgren color yarn test. Upon being handed the red skein and asked to "find some more like this one," Mike systematically searched through the pile of yarns and withdrew one blue and one green skein. "Are these alike?" asked the examiner. Mike nodded "Yes." A moment's scrutiny of the yarns showed that Mike was quite correct—the small metal identification tags were missing from all three skeins!

Beverly persistently called a picture of an umbrella a "flag." Upon being asked to describe a picture of a man walking in the rain with an umbrella, she said, "Man's out in the rain. Got a big flag over his head to keep dry." Obviously, then, the picture of the umbrella called forth the correct set of ideas, even though the wrong word was used. Thus, we can see how hasty or uncautious evaluations of the aphasic child's performance can give a very misleading picture of his intellectual functioning.

The third, and perhaps the most promising, channel of differentiation between the aphasic and the mentally deficient child is still in a highly experimental status. Strauss[3] and others claim that the test performance of the brain injured child is different from that of the endogenously defective child, even though they may make exactly the same numerical scores on various test items. There is evidence which suggests that this is especially true in childhood aphasia. An aphasic child and a mentally defective child may both pass or fail a test item, but they do it *differently*.

We have found a remarkable degree of consistency in the types of errors made by aphasic and deficient children in motor performance tests of the "mosaic design" and "object assembly" type. In a test, for example, where the child is required to arrange a number of colored cubes so that they form a design matching one shown on a printed card, we find that the deficient child generally makes errors in procedure, while the aphasic child makes errors of specific form and color relationships. The deficient child seems to be at a loss as to how to attack the problem; he will put the cubes together without any apparent plan or system. Then, seeing that the result does not look at all like the one on the printed card, he tries again, and again, still without any apparent system or insight into what he is trying to do. The aphasic child, on the other hand, usually approaches the problem with some sort of procedural system and usually completes some sort of design. The procedure may be inefficient and not at all what the "normal" child would do; but it is, nonetheless, a recognizable system of procedure. The resultant design may be incorrect—figure-ground relationships are reversed, specific details of the design may be inverted or missing; but the design is recognizable as the result of a planned, purposeful pro-

(*Continued on Page 266*)

A NOTE ON THE SOCIALIZATION OF POST-LOBOTOMY PSYCHOTICS DURING OCCUPATIONAL THERAPY GROUP SESSIONS

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This report summarizes observations made of the behavior of twenty-two lobotomized patients in the Veterans Administration Hospital, Chillicothe, Ohio, during the period from December, 1946, to June, 1948. The observations were made while the post-operative patients were attending occupational therapy group sessions. A parallel report on these same patients during this period was made by the attending psychiatrists and psychologists and has been published.[1] The present report is restricted to observations made by occupational therapists and concerns only the socialization behavior of the patients after frontal lobe surgery.

Materials and Methods

A chart was made for each patient to show his progress in socialization over a period of months (*see Table I*). The chart embraces a two-fold classification scheme: three different colors denote different moods; and a zero-to-six scale indicates the degree of social behavior. Blue denotes a cooperative mood; purple, an unpredictable mood; and red, an antagonistic mood. Gradations in social behavior range from zero, indicating little or no socialization, to six, indicating acceptable social behavior. A patient making the maximum progress would therefore receive a blue mark, indicating a cooperative mood, and would score six on social behavior. The most regressed patient would receive a red mark, indicating an antagonistic mood, and would score one less on social behavior.

As an instrument purporting to measure changes in psychotic behavior, this chart leaves much to be desired. Yet, within its limits, the chart highlights a number of significant facts. Before these facts are presented, however, it might be advisable to describe the conditions under which the observations were made.

Little or no socialization data were available concerning the patients' behavior before lobotomy, except that the patients were severely psychotic and exhibited very unacceptable social behavior. It may be assumed that those chosen for the lobotomy had exhibited, before their surgery, behavior which was near the zero level as measured by the chart.

Observation periods were initiated from two to six weeks following surgery. By this time the average socialization rating was far above the assumed pre-operative level. Most of the patients, in fact, obtained a rating of three or more during the first month of observation.

The post-operative management of these patients was under the joint supervision of several services in the hospital. Especial emphasis was given to group organization and participation, with regard to living quarters and to the various therapies. The psychiatrist and the several members of the rehabilitation staff developed a daily schedule of therapeutic experiences for each patient as soon as he recovered from surgery. This program was composed of approximately one hour each of corrective (physical), occupational, educational, and elementary manual (farm work) therapies. In addition, there were interviews and group meetings with the psychiatrists and psychologists. The objective of all the various therapies and meetings was to socialize the patients.

When the post-lobotomy program began in December, 1946, the occupational therapy program was conducted for an hour each day, three days a week. The program consisted of number work, games, drawing, spelling, and reading. The patients began with number work, first by counting and then by designing repetitious patterns out of colored straws. Simple card games, such as rummy, were then introduced. Spelling was taught by using lettered cards, and also by using a drawing book with the names of the objects beneath the pictures. Periodically, upon the request of the psychologist, the Goodenough Draw-A-Man Test was given to the patients to determine their mental age levels.

By the end of January, 1947, the psychiatrist considered the patients ready for educational therapy, and they were assigned regular school work. Corrective therapy (physical) was added to the schedule late in February, 1947. Occupational therapy at this time was held for a one-hour period five days a week and consisted primarily of games, drawing, and general conversation.

When the program began in December, 1946, only three patients were available for observation; but by June, 1947, twenty-two had undergone surgery and were placed in a special building with two other groups who had not had surgery and

* The opinions expressed herein are those of the author, and do not necessarily reflect the policies or viewpoints of the Veterans Administration.

TABLE I

INDIVIDUAL SOCIALIZATION CHART

GRADATIONS OF PATIENT'S SOCIAL BEHAVIOR	Post Operative Months											
	1	2	3	4	5	6	7	8	9	10	11	12
6. Active, shows interest, relevant speech, talks with other patients, participates in group.												
5. Active, shows interest, talks with other patients, participates in group.												
4. Some activity, cooperative, shows interest, will answer, but not ask questions.												
3. Attentive, passive, makes no attempt to ask questions, occasionally answers questions.												
2. Indifferent, passive, makes no attempt to ask questions. Seldom answers questions.												
1. Depressed, totally withdrawn, non-participating.												

PREVAILING MOOD

Cooperative—Blue

Unpredictable—Purple

Antagonistic—Red

were to be used as controls. While in the special building the lobotomy patients, though treated as a unit, were permitted to be in the halls with the patients of the other two non-lobotomy groups.

During the following six months, occupational therapy consisted mainly of group sessions in drawing. With the occupational therapist, the group met for one hour daily around a large table. During these sessions the patients were given suggestions to arouse their memories and to stimulate their creative abilities.

At the end of this six month period, the psychiatrist reviewed the socialization charts of the patients. It was noted that some of the patients appeared to be capable of a higher level of performance. It was therefore recommended that they be placed in a flexible program consisting of crafts and games. Other patients, who over a period of three to six months failed to show progress in drawing, were selected for the farm detail, where their behavior continued to be recorded.

Data

The observations on these twenty-two patients is summarized in Table II. The number of months of patient participation in the occupational therapy program ranges from three to thirteen months, the mean being seven and a half months. However because of space only data for the first ten months is pictured. Each line is a description of an individual patient's progress through the month.

Table II reveals that during the first month the patients' behavior ranged from 2.0 to 6.0; only one patient scored 2.0, one scored 2.5, and five scored 5.0 or more. The mean average for the group was 4.1. Oddly enough, during the first month all the patients had a blue (cooperative) mark. The term "first month," it should be noted, does not refer to a calendar month but to the first thirty days that each patient was in the rehabilitation group.

One outstanding feature not disclosed in Table II is the fact that weather conditions seemed to be a significant factor. That is, better behavior occurred during summer and fall months and worse behavior during winter and early spring months.

Table II also shows the status of the twenty-two patients seventeen months after the group program terminated. By then four patients had been given discharges from the hospital. One patient was on open-ward status and, through physical medicine rehabilitation, was assigned a janitorial job. Sixteen were on a continuous treatment status. Of these sixteen patients, six were receiving elementary manual therapy; two were being given

TABLE II

MONTHLY BEHAVIOR SCORES OF EACH POST-LOBOTOMY PATIENT DURING OCCUPATIONAL THERAPY SESSIONS

Date of Operation	1st mo.	2nd mo.	3rd mo.	4th mo.	5th mo.	6th mo.	7th mo.	8th mo.	9th mo.	10th mo.	November 1949 Hospital Status	November 1949 PMR Status
9-18-47	4.0	4.0	3.5	3.0	P 3.0	3.8	4.0	4.0	4.0	R 4.7	Deceased	
9-18-47	2.0	2.4	2.0	4.5	5.5	5.7	5.8				Continuous Treatment	EMT
4-13-47	3.0	P 4.0	P 4.0	R 3.8	3.0	P 2.4	P 2.0	P 3.4	P 2.7	3.7	Continuous Treatment	EMT
12-11-46	2.5	2.7	2.9	3.0	3.0	2.7	3.0	3.0	4.5	4.2	Continuous Treatment	None
8- -47	4.5	5.0	5.0	TV	Home						Open Ward	Assign. Sp. Duty
7- -47	4.5	3.5	3.8	3.4	3.0	3.5	3.5				Continuous Treatment	None
5-19-47	3.0	4.0	4.5	4.5	4.5	4.5	TV	Home			6-9-48 Discharged	
4-13-47	4.5	4.5	4.5	P 4.5	4.5	TV					5-13-48 Discharged	
3-21-47	4.0	4.0	4.0	4.5	4.5	4.5	5.0	4.0	4.0	4.2	Continuous Treatment	EMT
6- -47	4.5	4.5	5.0	5.0	4.5	4.7	5.0	5.0			3-29-49 Discharged	
4-15-47	3.0	2.5	4.0	4.0	4.0	4.0	4.0	TV	Home		12-12-48 Discharged	
7- -47	4.0	4.5	4.5	5.0	5.0	Disc.					Continuous Treatment	None
12-11-46	4.0	4.4	5.0	5.0	5.0	5.0	Disc.				Continuous Treatment	O.T.
5- -47	5.0	5.2	R 5.0	R 5.0	R 5.0	R 5.0	Disc.				Continuous Treatment	O.T.
6- -47	5.5	P 6.0	P 5.0	R 5.0	Disc.						Continuous Treatment	None
9-18-47	4.0	5.5	TV		P 5 0	P 3.7	3.8	4.3	TV		Continuous Treatment	None
7-17-49	6.0	5.3	5.8	5.3	5.0	4.7	5.8	5.5	5.0		Continuous Treatment	None
10-20-49	5.4	4.5	P 4.5								Continuous Treatment	C.T. O.T.
5- -47	5.5	6.0	P 5.0	R 3.3	R 4.7	5.0	5.2	P 5.0	P 5.0	R 5.0	Continuous Treatment	EMT
3-21-47	3.0	2.0	2.0	2.5	2.5	2.5	2.5	P 1.0	3.5		Continuous Treatment	None
3-21-47	3.5	2.5	3.0	4.0	4.0	2.5	2.5	3.0	4.0	5.0	Continuous Treatment	EMT
8- -47	2.5	3.0	3.0	3.5	3.5	4.3	4.3	4.0	P 3.5	3.5	Continuous Treatment	EMT
Ave.	4.1	4.1	4.1	4.1	4.1	4.1	4.0	3.8	4.0	4.3		

Prevailing Mood

No Letter —Blue
P —Purple
R —Red

PMR—Physical Medicine Rehabilitation
EMT—Elementary Manual Therapy
CT —Corrective Therapy
OT —Occupational Therapy

TABLE III

NUMBER OF PATIENTS WHO PROGRESSED, RETROGRESSED, OR DID NOT CHANGE FROM FIRST MONTH SCORE THROUGH VARIOUS PERIODS OF THE OCCUPATIONAL THERAPY PROGRAM FOR POST-LOBOTOMY PATIENTS

Period	Number Progressed	Number Retrogressed	Number No Change	Total Patients
Second Month	12	6	4	22
Third Month	8	5	8	21
Fourth Month	7	5	7	19
Fifth Month	2	5	12	19
Sixth Month	6	5	6	17
Seventh Month	8	1	5	14
Eighth Month	3	5	3	11
Total Period of Observation	15	5	2	22

both corrective therapy and occupational therapy; one was receiving only occupational therapy; and seven were considered inaccessible for physical medicine rehabilitation.

Table III summarizes the behavior score changes, if any, from the second month through the eighth month. During the total period of observation, fifteen of the twenty-two patients progressed, five retrogressed, and two recorded no change. The second month had the largest number showing either progression or retrogression, while the fifth month had the largest number who did not change and the smallest number who progressed.

Table II shows that from month to month the average score for the entire group did not change appreciably. The progression or lack of it, indicated in Table III, is due to individual shifts. Scores for the total group do not extend beyond the fifth month. Within these first five months, change in mood began to appear in the second month, and the group threshold appears to have been attained in the third and fourth months.

There are of course many questions left unanswered by this report. To what extent did occupational therapy promote the improved behavior? What did the other rehabilitation services contribute to the patients' progress? What effects should be attributed to the operation itself? What further improvements may be expected to result from the total push program? These and other questions remain to be answered by further investigation.

Conclusions

Within the limits of this report the following points were observed:

1. Group activity in occupational therapy for post-lobotomy patients appears to be of definite value as a step preliminary to other specialized programs of socialization.
2. The occupational therapist through her basic course of study and her clinical experience possesses knowledge and ability which qualify her to make accurate objective observations under a physician's direction which may be interpreted psychiatrically by him,
3. Individual treatment must go hand in hand with group treatment.
4. Games seem to be more successful than crafts or drawing in improving socialization, although there are significant individual variations.
5. World War I and World War II patients reacted similarly in this post-lobotomy period of rehabilitation through occupational therapy.
6. Further and more rigorously controlled programs may serve to clarify the many problems not answered here with relation to post-lobotomy patients and their treatment.

REFERENCES

[1]Jones, R. E.: *The Journal of Abnormal and Social Psychology*, 44: 315-328, July, 1949.
[2]Burlingame, C. C.: *Proceedings of the Royal Society of Medicine*, Vol. XLII, Supplement, pp. 31-42, 1949.

CLINICAL TRAINING*

FRANCES T. STUART, O.T.R.

UNIVERSITY OF WISCONSIN
Occupational Therapy Course

PERSONAL DATA SHEET FOR STUDENT CLINICAL TRAINING

1. General Information:

Name ..... O.T. School .....
Parent or Guardian ..... Date of Birth .....
Permanent address .....
.....
Field of training required .....
.....
Health (Include special handicaps, current medical and dental treatments) .....
.....
Quarters required: Yes.... No....
Academic background; (college and professional schools)

Name and Location	Major	Degree	Length of Study
.....			
.....			
.....			

Work experience .....
Skills and Interests .....
Clinical Training Schedule

Reporting and Completion Dates	Year	Affiliation	Length
.....			
.....			
.....			
.....			
.....			

Remarks:

( ) Request form and letter for space sent to director .....
( ) Confirmation received .....
( ) First confirmation form of students' names sent .....
( ) Confirmation received .....
( ) 1 data sheet and 3 clinical training record blanks per student sent .....

CLINICAL TRAINING CENTERS
1949 - 1950

Miss Grace Black, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
University of Oregon
Medical School, Hospitals and Clinics
Portland, Oregon

Mrs. Ralph H. Rose, O.T.R. ( ) ( ) ( ) ( ) ( )
Assistant to the Executive Director
Curative Workshop of Milwaukee
750 North 18th Street
Milwaukee, Wisconsin

Mrs. Mildred Trabert, O.T.R. ( ) ( ) ( ) ( ) ( )
Acting Dir. Occupational Therapy
Milwaukee County Hospital for Mental Diseases
Milwaukee, Wisconsin

Miss Frieda Meyer, O.T.R. ( ) ( ) ( ) ( ) ( )
Director
Rochester Rehabilitation Center, Inc.
233 Alexander Street
Rochester, New York

Miss Elsie W. Geerts, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Camarillo State Hospital
Camarillo, California

Miss Hazel McClain, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Mendota State Hospital
Mendota, Wisconsin

Miss Norma Smith, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Milwaukee Children's Hospital
Milwaukee, Wisconsin

Miss Irene Grant, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Muirdale Sanatorium
Milwaukee, Wisconsin

Mrs. Charlotte Briggs, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Niagara Sanatorium
Lockport, New York

*Based on clinical training at the University of Wisconsin.

Miss Lillian Wegg, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Rehabilitation Center of San Francisco
1680 Mission Street
San Francisco, California

Miss Winifred Roby ( ) ( ) ( ) ( ) ( )
Executive Director
Portland Rehabilitation Center
1535 Southwest 11th Avenue
Portland, Oregon

Mrs. Clayton O. Decker, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
The Children's Hospital
19th and Downing
Denver, Colorado

Miss Mary Louise Park, O.T.R. ( ) ( ) ( ) ( ) ( )
Dir. Occupational Therapy
Winnebago State Hospital
Winnebago, Wisconsin

Form No. 1

The making of a clinical training program for a class of twelve or sixteen students is a very complicated procedure, and the correspondence may become voluminous. The program should be made six months to a year in advance so that the students can plan for the financing of the ten months. At the University of Wisconsin it is felt after several years of experience that the ten-month training is a well-rounded program with the student having experience in the five specialties: neuropsychiatry, tuberculosis, pediatrics, general hospital, orthopedics. From this experience the student is able to choose the type of O.T. she wishes to practice as her future profession. The plan used in making our program may help other clinical training directors in making theirs. To some, the following routine may seem involved, but human nature being what it is, the detail is necessary because of delayed replies to letters.

The procedure is as follows: Form No. 1 is used to check the correspondence between the training centers and the school, and reduces letters to a minimum. First a letter, such as the one below, and form No. 2 are sent to the clinical training directors with a stamped self-addressed envelope.

Dear ...., 19 .

We are ready to make up our clinical training program for our June class. This is a request for general hospital training for our students in your department. We would like you to take one student for each two month period. Opposite the dates on the enclosed form, will you please check the spaces where you can take a student, and send us the signed half of the form in the enclosed envelope.

Sincerely,

..... O.T.R.
Director, Clinical Training

The program cannot be completed until all these forms have been returned by the directors. These answers are then checked in the boxes on form No. 1.

On a piece of engineering tracing cloth, such as architects use for blue-printing, form No. 3 which follows is drawn. The advantage of the tracing cloth is that it does not tear and the names can be erased if done in pencil. Using letters instead of names, you make the program on the tracing cloth, being sure the round trip doesn't mean extra travel for the student.

When this has been completed you replace the letters with the students' names. From this program, form No. 2 is again made out for each director, this time with the students' names, and sent for final confirmation.

The program has been completed when you receive this final confirmation. A letter such as the one below, with the student's data sheets and three or more clinical training report blanks per student are sent to the directors.

Dear ...., 19..

Enclosed for the students of the University of Wisconsin are data sheets and clinical training report blanks.

At the end of the affiliation, will you please send me two copies of the clinical training report for each student, signed by the director and the student. One is for us and one for the American Occupational Therapy Association office for a permanent record. Clinical training counts as 20% of a student's rating for registration.

Sincerely,

..... O.T.R.
Director, Clinical Training

The complete clinical training program includes three groups of training centers in Wisconsin, New York State, and the Pacific Coast by way of Denver. A travel agency has been very helpful in planning the trips to the far West and saving the student considerable money. In this way the student starts out with her complete ticket and reservations.

These are suggestions we find it necessary to give the students.

1. *Write the training directors at least one month in advance, especially the centers where they do not give maintenance. This will allow time for correspondence about living quarters and arrival.*

2. *After each affiliation write the director and the hospital administrator thanking them for the opportunity of training in their institution.*

This method has now been used successfully for four years. Because of the cooperation of the clinical training directors at the centers used, this plan has worked with practically no difficulty. The two-month period makes possible the smooth functioning of the program.

UNIVERSITY OF WISCONSIN
OCCUPATIONAL THERAPY CLINICAL TRAINING

.....O.T.R. Date.....
Dir. of Occupational Therapy
.....
.....
Dear.....
These are the affiliation periods for our ..... graduates. Please confirm.
Sincerely,
....., O.T.R.
Dir. Clinical Training

.....
.....
.....
.....
.....

Please return this half for confirmation

.....
.....
.....
.....
.....
Date ...., O.T.R.
Dir. Occupational Therapy
.....
.....

Data sheets on these students will be forwarded to director after confirmation has been received. (Enclosed stamped envelope.)

Form No. 2

CLINICAL TRAINING HOSPITALS

	General	N.P.	T.B.	Ortho.	Ped.	Ortho.	T.B.
Date 1950 1951	Wisconsin General Hospital	Mendota State Hospital	Muirdale Sanatorium Milwaukee	Milwaukee Curative Workshop	Milwaukee Children's Hospital	Rehab. Center Rochester, N. Y.	Niagara Sanatorium Lockport, N. Y.
July 3 Sept. 2	A	B	C	D	E		F
Sept. 5 Oct. 28	E	A	B	C	D	F	
Oct. 30 Dec. 30	F	E	A	B	C	D	
Jan. 2 Feb. 24	C	F		A	B	E	D
Feb. 26 Apr. 28	B--D	C			A--F		E

Student Program

Student A		Student F	
July 2 Sept. 2	Wisconsin General Hospital Gen.	Niagara Sanatorium, Lockport, N. Y.	(M) T.B.
Sept. 5 Oct. 28	Mendota State Hospital (M) N.P.	Rehabilitation Center, Rochester, N. Y.	Ortho.
Oct. 30 Dec. 30	Muirdale Sanatorium (M) T.B.	Wisconsin General Hospital	Gen.
Jan. 2 Feb. 24	Milwaukee Curative Workshop Ortho.	Mendota State Hospital	(M) N.P.
Feb. 26 Apr. 28	Milwaukee Children's Hospital Ped.	Milwaukee Childen's Hospital	Ped.

(M)—maintenance.

Form No. 3

Prize Winning Thesis

A PROPOSED CLASSIFICATION AND ACTIVITY LIST FOR SPASTIC HEMIPLEGIAS*

VITA R. PRESS
University of Southern California

There as an increased awareness in the medical field of the need for the total rehabilitation of the hemiplegia. "The successful treatment and return to independence in society of hemiplegias would prove to be a large group of persons now classified as being disabled for 'it is estimated that there are approximately 1,250,000 hemiplegic patients in the United States and they constitute one of the largest groups of individuals suffering from chronic neurologic disease'[1"2]. The Veterans Administration has faced this problem by planning a program of rehabilitation that includes physical therapy, occupational therapy, corrective therapy, and manual arts therapy.

THE PROBLEM

Statement of the problem. No known classification has been set up for hemiplegias. Yet they are of varying degrees of involvement. How then in the rehabilitation of the hemiplegia is the occupational therapist to give a graded activity program that will correlate with the extent of the patient's ability?

Purpose of the study. (1) to construct a classification for spastic hemiplegias based on the patient's capacities. (2) to develop a planned activity program based on the classification.

Importance of the study. On the basis of my observation in clinical experience and under the guidance of a clinical director who had worked extensively with this disability, it appeared that some kind of graded program was necessary for hemiplegic patients. A graded program that would give activities which would fit within the physiological and mental capacity of the patient.

In planning the program it was felt that initially a classification is needed that will serve the occupational therapist as a guide in scoring the patient when first seen. Classifying would serve to reveal the potentialities of the patient; what he can and cannot do as well as what his needs are. Through testing and classifying, the therapist would become more conscious of the patient's needs; thereby improving his treatment program. Furthermore as the patient progressed a change in classification would indicate his improvement and be a motivation factor for both the patient and the therapist.

After the patient has been classified, a planned graded activity program would provide suggestions for his treatment program, thereby saving the therapist time. It could enlarge the scope and variety of the program, as well as bring forth activities which might fulfil the specific needs of the patient.

In selecting activities it is very important to take into account the mental capacity of the patient. It has been my observation and understanding from doctors and therapists that in cases due to cerebral vascular accidents, the majority of whom are advanced in years, there is often present a mental slowness, a lack of acuity, along with a loss of self-confidence. Also, since hemiplegias are primarily elderly, there is often a slowing up of the senses and sometimes senility. Therefore, to insure the patient's success and to aid in rebuilding his self confidence, activities should be selected within the mental as well as physiological capabilities.

The scope of the problem. The activity program presents a listing of available crafts and exercises and in some cases an explanation of adaptations and functions. In the classification and discussion of the hemiplegia and his rehabilitation the upper extremities only have been dealt with, except for the listing of some crafts which include the use of both the arms and legs.

Another topic not discussed is that of activities of daily living and self-help equipment. It is an important phase in the rehabilitation of the hemiplegic patient and would take an extensive study to cover the subject.

THE PATHOLOGY

Hemiplegia is a lesion in the pyramidal tract, anywhere in the brain, producing an upper motor neuron paralysis of the opposite arm and leg. The functions lost, or the negative symptoms were dependent upon the pyramidal fibers that carry impulses which excite voluntary movement. The new phenomena observed, which were not present before the lesions, may be called the positive symptoms. These symptoms are the manifestations of the activity of inhibitory mechanisms of the nervous system which have been released or escaped from control as a result of the damage to the pyramidal fibers.

Negative symptoms. Immediately following the cerebral hemorrhage the following signs are evident. There is usually a weakness of conjugate deviation of the eyes to the side opposite the lesion, and weakness of the rotation of head to the op-

*A condensed and edited presentation of the prize winning thesis entered in the Journal contest for 1951.

posite side. There is some degree of dysarthria. These signs will disappear in later stages. In complete hemiplegia the lower two thirds of the face is paralyzed and drawn to the healthy side, the tongue is protruded to the side of paralysis. The muscles which are bilaterally innervated usually escape, while the chest and abdominal muscles generally are slightly involved.[3] In the limbs the finer and more skilled movements suffer more than the grosser and less skilled. Hence, movements of the fingers and toes are weaker than movements at the proximal joints of the extremities. Probably due to the distribution of muscular hypertonia, movements of flexion tend to be stronger than those of extension in the upper limbs, while the reverse is usually the case in the lower limbs.

In recovery of movement, the weakness of the tongue is the first to improve, afterward the face, later the lower extremity, and finally and much less perfectly the upper extremity beginning in the arm and ending with the fingers."[4]

Positive symptoms. 1. Muscular hypertonia. Immediately after the cerebral accident the paralyzed limbs are completely flaccid due to occurrence of neural shock. After approximately two to three weeks, tone gradually returns to the affected muscles and they ultimately become hypertonic or "spastic." Not all muscle groups exhibit hypertension in equal degree. In the upper extremity the adductors and internal rotators of the shoulder; flexors of the elbow, wrist, and fingers; and pronators of the forearm are usually more spastic than their antagonists. In the lower extremity the hypertonia predominates in the adductors of the hip, and the extensors of the hip and knee, and in the plantar flexors of the foot and toes. In about one to four months contractures tend to develop in these spastic muscles.

2. The hemiplegic posture is the outcome of the selective distribution of hyper-tonia in the limb muscles, the more spastic muscles determining the position of the limb segments. Hence, the usual spastic hemiplegia presents the following signs. In the upper extremity the flexors predominate. The affected arm is internally rotated and flexed. When the patient is asked to move his affected arm he will elevate the shoulder and abduct and internally rotate the arm. The extremity is usually held close to the chest.[5] "In these contracted positions the joints become practically solidified. After the case is somewhat chronic, if the fingers or wrist are extended, they fairly snap back to their flexed positions and the tightly clenched fingers may cause trophic changes in the palm".[6] "In cases of long standing, probably both from the enforced inactivity and trophic disturbance, the range of joint movements is considerably limited irrespective of the muscular contracture and sometimes this appears early".[7]

In the lower extremity extension prevails. The limb is extended with plantar flexion and often slight inversion of the foot. When the patient's leg is fully extended voluntary dorsal flexion of the foot is impossible. When, however, the knee is flexed and the patient flexes his hip against resistance the foot will dorsi flex and supinate (Strumpell's Phenomena).[8] The paralyzed limbs show marked circulatory disturbance.

3. Reflexes. At first the deep reflexes are abolished or greatly diminished. Gradually the tendon reflexes on the paralyzed side increase and become exaggerated as the shock passes off. The knee-jerks, the tendon achilles reflex, the biceps and tricep reflexes of the upper extremity are all increased. Clonus may be present in the flexors of the fingers, the quadraceps femoris, and the calf muscles. The abdominal and cremasteric reflexes are diminished or lost, and the plantar reflex becomes extensor.[9]

THE TREATMENT

Purpose of the program of rehabilitation: "(1) to prevent deformities; (2) to treat deformities if they occur; (3) to retrain the patient in ambulation and elevation activities; (4) to teach the patient to perform the activities of daily living and working with the unaffected arm and hand; (5) to re-train the affected arm and hand to its maximum capacity and; (6) to treat the facial paralysis and speech disability if they are present".[10]

In the rehabilitation of the hemiplegia, the objectives of physical medicine and the measures for directing the therapy are two-fold, namely, prophylactic and definitive.[11]

Acute phase. During the acute phase of the illness treatment is solely medical, supplemented by intelligent nursing care. Maintenance of cleanliness, frequent changes of positions, insistence on good bed mechanics, sandbags, or pillows being used if necessary are all important in the prophylaxis against trophic changes in the skin and contracture deformities.[12]

The program of rehabilitation is begun from two to four weeks after the onset of acute illness. Initial flaccid paralysis is usually followed within weeks by spasticity; the start of the rehabilitation regime should precede the onset of the latter phase.[13]

Prophylactic. The initial program is prophylactic: daily passive exercise to prevent adhesions of joints and shortening of muscles; proper posture and passive motion of normal range to prevent spastic tendencies; use of the Hubbard Tank for reeducation exercise and for early active exercises; and voluntary motion in bed as soon as able.[14]

Definitive. The physical therapist and/or the corrective therapist should begin definitive efforts at re-ambulation early. The period varies from

two to eight weeks but ambulation is physically feasible for the average patient within three to four weeks after his acute illness.[15]

Concurrently with training in ambulation a program for the upper extremities should be given. "As a return of function in the affected upper extremity cannot be expected for a long period of time, if it ever does return, it is essential to teach the patient to care for his daily needs with his unaffected arm."[16]

A right hemiplegia in a right handed person is a serious disability because of the sensory and motor aphasia and a lack of skill in the left hand to perform the activities of daily living.[17] Nevertheless, except for the essential tasks such as eating and dressing, training of the unaffected side should not be begun until one has tried to regain function of the affected right side. After three or four months, if it is seen that there is very little return on the right arm and spasticity is present, development in one handed skills with the unaffected left hand should be begun.[18]

In the training of the affected arm the most difficult shoulder movement for the patient to regain is external rotation. Flexion and extension of the forearm is difficult to perform while pronation and supination are usually impossible. The finger and thumb are usually flexed tightly.[19]

The fingers will probably never regain their former use. If adequate function is attained, it will take years of effort for the patient. He should be made to understand that movements of the fingers depend upon the proper functioning of the shoulder, elbow, and hand; and placing the hand in position for purposeful useful movements.[20]

THE PROGNOSIS

"Considerable improvement may be anticipated during the first two or three months and then much slighter progress to the end of the first year or eighteen months. Thereafter the case will practically be stationary."[21]

Cooperation on the part of the patient, fostered by his desire to regain his independence, is the greatest factor in assuring the success of his ultimate rehabilitation.

The extent of ultimate functional return is dependent primarily on the degree of damage wrought by the vascular accident. Secondarily, however, the expeditious and intelligent direction of the program of rehabilitation markedly augments the favorable outlook. The treated patient always shows better results than the untreated patient; and delay modifies in direct degree the success of the final result.[22]

CLASSIFICATION FOR SPASTIC HEMIPLEGIAS

Having described the illness and mentioned the disabilities that occur, this chapter will present a proposed classification for spastic hemiplegias. The patient will not necessarily duplicate every category listed under one of the four classes; but he should be placed in the class which he comes closest to fulfilling.

CLASS IV

No voluntary movement to slight voluntary movement of affected upper extremity.

1. Actively able to raise and lower the arm between 0 to 60 degrees with or without compensation.
2. Actively able to flex and extend the elbow between 0 to 30 degrees.
3. Affected hand is able to hold on to object when put on passively, but not able to release it.
4. Contractures often present. Extremity adducted and internally rotated at the shoulder, flexed at the forearm, wrist, and fingers.

CLASS III

Moderate voluntary movement of affected arm and forearm; slight voluntary movement of the hand.

1. Actively able to raise and lower the arm between 60 to 110 degrees with or without compensation.
2. Actively able to flex and extend the elbow between 30 to 75 degrees.
3. Affected hand able to grasp and release object size of pencil voluntarily with some difficulty.
4. Moderate contractures often present.

CLASS II

Moderate voluntary movement of affected upper extremity.

1. Actively able to flex and extend the arm between 110 to 160 degrees.
3. Actively able to flex and extend the elbow between 75 to 125 degrees.
3. Affected hand able to extend fingers to grasp and release object, such as pack of cigarettes, with some difficulty.
4. Affected hand able to oppose thumb to fingers up to slight resistance (pinch weakly).
5. Little or no contracture deformities present.

CLASS I

Good voluntary movement of affected upper extremity; strengthening and coordination needed.

1. Actively able to flex and extend the arm between 160 to 180 degrees.
2. Actively able to flex and extend the elbow between 125 to 145 degrees.
3. Actively able to move extremity through full to nearly full range of motion with moderate resistance.
4. Affected hand able to oppose thumb to fingers with moderate resistance (pinch moderately-little finger weakly).
5. Able to pick up pin with affected hand.
6. Little or no contracture deformities present.
7. Able to extend fingers to pick up object about five inches in diameter.

ACTIVITIES FOR SPASTIC HEMIPLEGIAS

With a classification established, the chapter to follow is concerned with presenting a graded activity list based on the four defined classes. The activities are subdivided within the class into those performed with both the affected and non-affected arm and those performed with only the unaffected side. With the latter the affected arm should be in the correct working position, and when necessary sandbags for relaxation of a claw hand. In class IV, and sometimes III, a sling suspension is used while performing bilateral activities. When a patient reaches class one and two all the activities should be performed bilaterally.

CLASS IV ACTIVITIES

Functional use of the affected side is primarily holding and passive motion.

Bilateral

1. Dr. Deaver hand and arm exercises
2. Sanding with sanding blocks—plastic and wood
3. Weaving—floor loom, affected arm beating

4. Leather stamping with adapted equipment
5. Knotted rug
6. Basketry
7. Yarn Animal—using adapted shoulder wheel
8. Hand filing

One handed

9. Treadle sewing machine
10. Rake knitting—straight and round frame
11. Embroidery (cross stitch etc.)
12. Yarn animals—without shoulder wheel
13. Leather—tooling and lacing
14. Woodburning
15. Woodworking projects
16. Plastic projects
17. Ceramics—press mold, rolling, wedging
18. Hooked rug
19. Loopers—with hook
20. Needlepoint—dixie mesh cloth
21. Magic loom
22. Stenciling
23. Spatter paints
24. Finger painting
25. Painting—ceramics, oil paints, water color, sketching etc.
26. Etched trays—copper, brass, aluminum
27. Enameling—copper ash trays, bowls, platters
28. Decals

CLASS III ACTIVITIES

This classification is very close to Class IV and includes the same activities with more emphasis on both the active and passive motion of the affected arm.

CLASS II ACTIVITIES

Includes all the activities in Class III, but brings in more work for the affected arm than in the preceding class.

Bilateral

1. Hand sawing—jewelry saw
2. Hand planing
3. Hooked rug—reciprocal motion
4. Weaving—floor, table, upright looms
5. Ceramics—slab, wedging, press mold, coil
6. Adapted checker board
7. Cord Knotting
8. Card weaving—small cards
9. Finger painting
10. Leather tooling and lacing—more tonic than kinetic
11. Painting ceramic figures—affected arm holding
12. Etched copper—affected extremity holding
13. Needlepoint—affected hand holding
14. Braid weaving
15. Wood Burning—affected extremity holding
16. Treadle sewing machine—affected extremity holding
17. Loopers—affected extremity holding
18. Embroidery—affected extremity holding
19. Rake knitting—affected extremity holding
20. Wood and plastic projects
21. Stenciling

CLASS I ACTIVITIES

Includes all the activities in class II, but brings in more work for the affected arm than in the preceding class.

Bilateral

1. Ceramics—potters wheel
2. Handknitting machine
3. Woodworking and plastics—filing, sanding, drilling, hammering, sawing, treadle sander, bicycle saw.
4. Printing machine for printing or linoleum block prints
5. Wood carving.
6. Whittling
7. Copper—hammered
8. Copper jewelry, coiled and twisted; carved jewelry
9. Leather carving

ADAPTATIONS AND FUNCTIONS OF ACTIVITIES

In applying the activities that are listed in the preceding chapter, some adaptations are necessary for the specific hemiplegic disabilities and for the specific classification.

SLING SUSPENSION

Functions:

1. To be used with activities, especially useful in class III and IV.

2. To hold the weight of the arm, thus allowing passive exercise of the extremity, and maintaining the arm in a functional position.

3. To eliminate weight of gravity making it possible to work for wrist and finger motion.

4. Places the deltoid in position of maximum functioning, as tests by Dr. Yamshon have shown that the deltoid has its greatest power when the arm is at or above the shoulder level. Therefore, the starting position of any therapeutic procedure should be with the arm either at shoulder level or as close to this height as possible. As strength in the deltoid increases, the arm may be worked at a level that's lower.

5. When it is too painful or difficult for the patient to work with his arm at shoulder level in a sling, it is easier to work at a low table where the elbow will not get in the way.

SAND-BAGS

Functions:

1. A claw hand may be weighted with sandbags to aid in teaching relaxation, to maintain extension of the wrist and fingers, and to hold the thumb out.

2. It maintains the arm and hand in functional position of table level. Good habit patterns are set up replacing the poor habit of holding the hand in the lap.

TONIC NECK REFLEX

"It has been demonstrated that the spastic hemiplegia can extend his elbow to greater degree and with greater strength when the face is turned toward the involved side (tonic neck reflex) than when the face is forward or toward the normal side. Extension of the elbow can best be obtained when the arm is elevated and supported at ninety degrees. This position is favorable to the deltoid which is not only paretic by nature of the condition but is frequently atrophied owing to disuse."[23] Hemiplegia," *Archives of Physical Medicine*, Nov. 49, pp. 706-711.

RELAXATION

In salvaging innervated muscle through reeducation and the building of muscle power to a maximum functional level the patient needs to learn relaxation of the affected part. He is better able to perform active motion when he can relax the spastic muscles.

Sandbags are one means of aiding in relaxation. A claw hand could be weighted with sandbags. Then when the patient is able, the sandbags can be removed while he consciously maintains the relaxation.

Another aid is for the therapist to give simple directions such as, "Let your arm fall limp, then take a deep breath and let it slowly out of your mouth".

It is possible to combine relaxation with reeducation of the muscles. After the arm is relaxed at the side, the patient can try to flex it at the elbow as high as he can without compensating at the shoulder. Sometimes, when the patient is unable to get an active motion, the muscles can be reeducated through the therapist's passively moving the arm after the patient has relaxed. This process is repeated until the patient gradually is able to move the part himself.

DR. DEAVER HAND AND ARM EXERCISES

"The exercise program for retraining the affected arm depends upon the patient. Results cannot be expected by having a therapist work on the patient. Work-

ing with the patient so that he understands what exercises are to be practiced many times a day is the only procedure which will improve the disabled arm."[24]

"*Exercise* 1. Flexion of the arm at the shoulder.

1. Purpose: To obtain full range of motion at the shoulder of flexion and extension.

2. Position: Sitting on a chair or lying supine in bed.

3. Instructions: The patient grasps the wrist of the affected arm with the fingers of the unaffected arm. He raises the arms forward upward as far overhead as possible. Repeat 5 times on the hour.

Exercise II. Flexion and extension of the forearm and supination and pronation of the hand.

1. Purpose: To combine flexion and extension of the elbow with supination and pronation of the hand.

2. Position: Sitting in a chair, elbows close to side of body and palms of the hands together with the ulna side of the hands resting on the affected knee.

3. Instructions: The patient places his palms together, flexes the forearm and supinates the affected hand as he raises it to the chin. On extension of the forearm the hand is pronated. Repeat 5 times on the hour.

Exercise III. Extension of fingers and thumb.

1. Purpose: To prevent finger contractures by extension of fingers and thumb.

2. Position: Sitting on a chair.

3. Instructions: With the fingers of the unaffected hand, extend each finger and thumb of the affected hand. Repeat 5 times on the hour.

Exercise IV. Extension of fingers and thumb.

1. Purpose: As in exercise III.

2. Position: Sitting in a chair with hand resting on table in pronation and fingers extended as far as possible.

3. Instructions: Press backward and downward on the dorsal surface of the hand so that the palm of the hand is in contact with the table. Repeat five times an hour."[25]

ACTIVITIES PERFORMED WITH UNAFFECTED HAND

Function of activities.

1. Kinetic gains: (a) affected extremity held in working position thereby setting good position habit pattern; (b) relaxation for contractures of the hand with sandbags when necessary; (c) patient holds down project with affected hand when able.

2. Tonic gains.

3. Develops skill in non-affected hand. Especially important when dominant side is affected.

Activities. The following activities may be performed with the unaffected side.

1. Leather tooling
2. Leather lacing
3. Woodburning
4. Etched trays
5. Painting
6. Finger painting
7. Hooked rug
8. Magic loom
9. Enameling
10. Rake knitting
11. Loopers
12. Needlepoint
13. Plastic and wood projects
14. Ceramics—press molds
15. Stenciling
16. Embroidery
17. Yarn Animals
18. Decals
19. Treadle sewing machine
20. Weaving
21. Knotted rug
22. Basketry

SANDING WITH SANDING BLOCKS

Functions:

1. To maintain and increase range of motion of affected upper extremity.

2. To increase work tolerance of the affected upper extremity.

3. To develop control of affected upper extremity.

4. To promote nutrition of affected upper extremity.

5. To encourage use of affected upper extremity.

Inherent functions of craft without adaptations—4, 5, 6.

Adaptations. Functions 1, 2, and 3 can be made more effective through adaptations.

1. To maintain and increase range of motion of: (a) abduction and flexion of the shoulder—place work shoulder high or at upright angle to the affected side of the patient; (b) flexion and extension of the forearm—place work in front or at upright angle in front and sand back and forth.

2. For passive range and for building up work tolerance use weights to help pull into extension and pull back against resistance, especially for class III and IV.

3. To develop grasp, grade the sizes and shapes of handles on the blocks to meet the patient's limited grasp.

4. Class IV. adaptations: (a) use of sanding block in which wrist and fingers are tied down so they are in forced extension; the unaffected hand is placed over the affected to perform the active motion; (b) provides passive motion of: flexion and extension, abduction of shoulder; flexion and extension of the forearm; keeps wrist and fingers extended.

WEAVING

Functions:

1. To maintain and increase range of shoulder flexion and extension and abduction; elbow flexion, extension, pronation; wrist in extension.

2. To increase work tolerance of affected upper extremity.

3. To develop control of affected upper extremity.

4. To promote nutrition of affected upper extremity.

5. To exercise the lower extremity on the floor loom.

6. To establish and maintain good posture.

Inherent functions with activity are 3, 4, 5, and 6.

Adaptations:

1. To maintain and increase range of motion of: (a) flexion and extension of arm and forearm keep warp forward on the loom; (b) horizontal abduction of shoulder grasp beater out to sides; (c) pronation—hold shuttle with palm facing down.

2. To develop work tolerance and coordination as well as stretch contractures in the fingers and wrist use table loom with the side treadles on the affected side.

3. Sand paper on treadles helps to keep foot on.

4. Class III and IV: (a) Floor loom with built out handles on beater for the affected hand gives passive flexion and extension and abduction to the arm, flexion and extension to the forearm. Patient gradually gains ability to perform active motion. (b) Place shuttle in shed with the unaffected hand, remove with the affected if able.

5. Class I and II: Resistance on the beater for developing work tolerance, and spring resistance on the foot peddles for resistance to the leg.

6. To develop control use finer thread and small shed.

ADAPTED CHECKER BOARD

Functions for class I and II:

1. To maintain and increase range of motion for affected upper extremity.

2. To increase work tolerance of affected upper extremity.

3. To develop control of affected upper extremity

4. To promote nutrition of affected upper extremity.

5. To develop and strengthen reach grasp and release.

6. To establish and maintain good posture.

Inherent functions of the activity are 4, 5, and 6.

Adaptations:

1. To maintain and increase arm abduction place

board to affected side.

2. To increase work tolerance checkers may be weighted with lead.

3. To develop control checkers made to fit into pegs.

WOODWORKING

Woodworking is adaptable to use in restoration of joint movement, muscular function, and coordination of various parts of the body. There are unlimited possibilities, of gradation of effort through the choice of materials, tools, or body position; or combination of these. The bicycle saw and treadle sander are effective for the lower extremity.[26]

YARN ANIMAL WINDER

Functions and adaptations for winding shuttles and making yarn animals.

1. To maintain and increase range of motion wind with the affected arm. That way you get plain flexion and extension of the shoulder with no abduction and flexion and extension of the elbow. It puts the wrist into hyper-extension and stretches it.

2. To increase work tolerance and strengthen either the flexors or extensors, wind backward or forward.

3. To develop the grasp put on larger handles.

Further adaptations:

1. Sling suspension to take the weight off the triceps and the biceps.

2. Rubber bands attached to the wheel to help bring the wheel back up if it gets stuck.

3. Weighted to go against resistance, graded so it can go full range. Weights can be taken off as the patient improves.

LEATHER STAMPING TOOL HOLDER

Functions:

1. When coordination and finger dexterity are limited and not likely to improve, the stamping tool holder allows the patient to do leather work that he otherwise would be unable to do.

2. Motivation of the patient is increased when his skill is comparable to others without his handicap.

3. When there is not much return it aids in preventing contractures.

4. The affected extremity is held in a position closely imitating that of the normal working position.

5. The repetitious use of this position forms a good habit pattern.

6. The handles are graded to suit the grasp of the individual patient.[27]

CONCLUSIONS AND RECOMMENDATIONS

It is felt that in the rehabilitation of the hemiplegia, the occupational therapist will be able to give a graded activity program that will correlate with the extent of the patient's ability by utilizing the classification and graded activity program that have been presented.

It is recommended that they be applied to a controlled group of patients, that the program be evaluated and tested to see if my divisions are valid and workable.

To insure a program of maximum function it is felt that the activity program should be a growing one. It should be further refined, adapted and increased to meet the needs of the therapist's program.

REFERENCES

1. Covalt, D., "Rehabilitation of the Patient with Hemiplegia," *Occupational Therapy and Rehabilitation*, December, 1949.
2. Jeanne Carrol, "The Utilization of Reinforcement Techniques of the program for the Hemiplegia," *American Journal of Occupational Therapy*, Vol. IV, No. 5, Sept.-Oct., 1950.
3. Wechsler, *Textbook of Clinical Neurology*, (6th ed. 1947), pp. 302-306.
4. Church and Peterson, *Nervous and Mental Diseases*, (7th ed. 1911) pp. 213-214.
5. George Deaver, "Rehabilitation of the Hemiplegia," pp. 1-5.
6. Church and Peterson, *op.cit.*, p. 213-214.
7. *Ibid.*, p. 213-214.
8. Deaver, *op.cit.*, p. 1.
9. Alfred Gordon, *Diseases of the Nervous System*, (1908). pp. 83-85.
10. Deaver, *op. cit.*, p. 1.
11. Edward W. Lowman, "Rehabilitation of the Hemiplegic Patient". *Journal of American Medical Assoc.*, Vol. 137 No. 5, April 1948.
12. *Ibid.*
13. *Ibid.*
14. *Ibid.*
15. *Ibid.*
16. Deaver, *op. cit.*, p. 3.
17. Deaver, *op. cit.*, p. 3.
18. Miller. Interpretation from conference with Dr. Miller at Wadsworth Veterans Administration.
19. Deaver, *op. cit.*, p. 3.
20. *Ibid.*, pp. 4-5.
21. Church and Peterson, *op. cit.*, p. 210.
22. Lowman, *op. cit.*
23. L. J. Yamshon, "The Tonic Neck Reflex in the Hemiplegia," *Archives of Physical Medicine*, Nov. 49, pp. 706-711.
24. Deaver, *op. cit.*, p. 3.
25. Ibid., p. 3-5.
26. Helen S. Willard and Clare S. Spackman, *Principles of Occupational Therapy*, (J. Lippincott 1947)
27. Ardis Gabel, unpublished article on stamping tool holder.

BIBLIOGRAPHY

Brain, W. R., *Diseases of the Nervous System*, (publisher unknown, 1947) pp. 2-9, p. 393.

Carrol, Jeanne, "Utilization of Reinforcement Technique in the Program for the Hemiplegia", *American Journal of Occupational Therapy*, Vol. IV, No. 5, Sept.-Oct. 1950.

Church and Peterson, *Nervous and Mental Diseases*, (Publisher unknown 1911) pp. 210-230.

Covalt, D., "Rehabilitation of the Patient with Hemiplegia," *Occupational Therapy and Rehabilitation*, 29:477, December 1947.

Deaver, George, "Rehabilitation of the Hemiplegia," (Date and publication unknown) pp. 1-5.

Forbes, Elizabeth S., "Two Devices for use in Treating Hemiplegias," *American Journal of Occupational Therapy*, Vol. IV, No. 5, March-April, 1951.

Gordon, Alfred, *Diseases of the Nervous System* (publisher unknown, 1908, pp. 83-90.

Hurt, Sue P., (ed) *Orthopedic Syllabus*, (Virginia 1944) pp. 75-110.

Lowman, Edward W., "Rehabilitation of the Hemiplegic Patient", *Journal of American Medical Association* Vol. 137 No. 5, April 1948.

Ranney, A. L., *Lectures on Nervous Diseases*, (1888)

(*Continued on Page 267*)

NATIONALLY SPEAKING

From the President

It seems that I am always either pleading for our needs or thanking you, the members, for your consideration, monetary or otherwise. So here I am again, following the very successful New England conference, to express to you the sincere appreciation of the Board of Management for your whole hearted acceptance of the appeal for an increase in dues.

Your energetic delegates worked diligently on the problems which came before the "House." It is inspiring to watch the representatives of your state associations project your views, then match wits on the problems which evolve from the group discussions. The solemn purpose and unity as exemplified by your chosen delegates are the motivating forces of our profession. There your ideas gain momentum and give rise to the establishment of new committees with new projects and hence continued progress.

Substantiated by such enthusiasm our national office staff gear themselves anew to handle all matters pertaining to our profession as well as those allied to occupational therapy in any way.

Miss Fish, as Executive Director, has taken over the reins of your office like a veteran in her relations with members, groups and committees. With her tact and diplomacy coupled with a broad knowledge of education and the clinical field we look forward with bright hopes.

You would be proud of the performance of our Educational Secretary, Martha Matthews, in making her first conference presentation to the Education Committee, the Board and the General Session. Miss Matthews has been in our national office for only a few months. Nevertheless she has admirably justified the confidence of the Board of Management in her appointment.

Because it was necessary to have both Miss West and Miss Fish carry through the annual conference the Assistant to Executive Director, Harriet Warren, stayed in New York to "keep house" at 33 West 42nd Street. However I would like to remind you of the value of her service to our association. Harriet might be called the under-cover man—always ready to carry out the arduous routine of meeting deadlines on the News Letter and other mailings which come so promptly. Placement is another of her endless duties besides the dozens of interviews and extras that occur constantly. She "holds the fort" when the director is involved in weighty problems. Hers is the valuable kind of contribution and service which unconsciously but frequently goes "unsung."

Your ready acceptance of the need for raising dues will take care of the most vital demands of our national program. There are however various avenues of expansion in which we will be unable to engage due to inadequate budget for travel. Important among these is the attendance of a national office representative at meetings of allied professional and educational groups. We shall of course make every effort to maintain contact with the more important of these, especially those meetings which have been regularly attended by some member of our office staff.

It is felt that the state associations could assist in maintaining many contacts with allied professional circles. Perhaps a member of your state group could be designated as official representative for A.O.T.A. at meetings held in your locality. Your thoughts in this direction will be welcomed. We realize you ordinarily attend such meetings and no doubt benefit from so doing. Would you be willing to represent your profession, make contacts which might be referred to you by the national office and send a report back on important implications or actions which concern occupational therapy?

With our membership broadening geographically if not numerically, such sponsorship by state associations would seem a desirable possibility. Requests might be made from the national office for specific assignments according to the area of O.T. concerned and the locality of the meeting.

Then there is of course the ever present need for continuance of recruitment efforts with its public relations. There has been evidence of an increasing understanding or knowledge of O.T. but also the recognition that occupational therapy education is beyond the financial means of many interested in the course. Can we, as state groups, stimulate women's clubs or sororities to provide scholarships or monetary aid to occupational therapy students? Other professions are doing it quite successfully. Perhaps you are doing it. If so will you please tell us about your experiences; they may inspire others.

There is definite awareness of the need for more and better exhibits in every area of occupational therapy. Again limited funds are a drawback to an all out effort to fulfill these needs from the national office. We hear and occasionally see evidences of very clever publicity and displays from various state groups. For example: the Texas (State) O.T. Association's annual program with subsequent publicity and the recruitment brochure "is this for you" prepared by the Washington (State) O.T. Association. Many of your ideas and much of your material could be used by neighboring groups or could represent O.T. in allied groups in your area if the national office could be informed as to the availability of it.

An exchange of material and perhaps eventually a compilation of the best from the state associations would bring about an O.T. exhibit suitable for almost any situation.

We are pleased to report that the membership dues have come in very well. We sincerely appreciate the good response from all.

Respectfully submitted,

(Mrs.) Winifred C. Kahmann, O.T.R.
President.

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*Annual Report of the Executive Director**

Annual reports generally follow a more or less standard pattern. Even the most brief usually cover the following minimum considerations: a summary of activities for the period covered, an interpretation of the effects of these activities, a statement of progress to date, an analysis of needs that remain unmet, and at least a few comments concerning future plans and objectives. I have tried in preceding years to follow this general pattern and to make reports based upon it as meaningful as possible to you. I am taking the liberty this year of departing slightly from it.

It is not necessary annually to ennumerate for you the activities of your national office. You know that they are concerned primarily with administration, publications, membership services, service to committees, placement, publicity and recruitment, public relations and educational research. In January of 1949 we adopted a new policy of maintaining a regular feature of our magazine known as the Nationally Speaking section. In these columns your president, executive director and educational field secretary have endeavored to bring you regular reports concerning the profession at large and the activities of the national office in particular. Through the semi-annually published reports of these same persons plus the officers and committee chairmen of the association you receive other information. In the now-monthly Newsletter we endeavor to bring you the most current and relevant information available. In short, a routine report of the type usually given would merely be a repetition of what you already know. I will therefore just summarize briefly and generally in retrospect.

The year that has ended since our 1950 annual meeting has in no way been unusual. Our chief problems today are very similar to those we faced last year and the year before. And, I believe, we will still be attempting to alleviate them one, two and three years from now. Specifically they are personnel and finances—personnel for the profession of occupational therapy, and funds for the maintenance of national office and association activities.

Identification of these problems and needs has determined the main course of our efforts and activities during the year. An inadequate supply of personnel has dictated our continued national policy of effort in the area of publicity and recruitment for occupational therapy. Individually or through your state or regional association or through reference to reports in your magazine, each of you knows what direction these efforts have taken. It is difficult to measure the tangible effect of any or all of them but we do know that the help they have provided to date is not yet enough.

Since we have inadequate personnel and since association income is derived from support of that personnel, our national financial picture likewise reflects unmet needs. In numbers of registered occupational therapists and members of the American Occupational Therapy Association we have grown very little over the last few years. This means that our income is on essentially the same plateau that it has been on in the recent past, while in contrast, our expenses to meet increasing responsibilities continue to rise. Despite this gap you have had evidence of the fact that many regular association activities have been expanded, a few new ones added and only one slightly curtailed in the past year. You will gain some insight into the reasons for this in the treasurer's report later this morning.

With this very brief glance at the association, its national office and activities, I should like to transform the remainder of this report into a prospectus, not for the national office or association activities, but for clinical occupational therapy.

It may be presumptuous on my part to make these observations and critical comments on our faults and weaknesses as I see them and to suggest a future course for our development. My own clinical experience has been limited. However on the basis of six years in national positions I have had some opportunity to view the overall picture and to judge the general effectiveness of our profession. I know few individual situations well but I have had the privilege of seeing many departments and schools and an opportunity to evaluate the broad results of our activities and efforts to date. I have also been in a position to absorb many internal gripes. Few days go by at the national office without some letter, phone call or visit reflecting complaints about and realizations of our own ineffectiveness as occupational therapists. The great majority of these can be traced to inadequate foundations in either education or clinical experience to treat outside certain area limits which will subsequently be ennumerated. Similarly in

* Read at the General Session, 34th Annual Convention, Wentworth-by-the-Sea, Portsmouth, New Hampshire, September 11, 1951.

broad contacts with many persons from related medical groups, I have received impressions and collected ideas from those I would call "our friends, the critics", those who are sincere and speak frankly. Such comments invariably bear out the following remarks and conclusions.

Taking stock then of our clinical gains to date and of our status at present, where are we going from here?

I believe that the best future for occupational therapy lies in capitalizing on the areas in which we presently excel and in ceasing to weaken our real contributions by constantly expanding and spreading ever thinner. I would identify these areas as follows: neuropsychiatry, tuberculosis, cerebral palsy and the general area of upper extremity physical disability. In these fields I believe there is no substitute for occupational therapy. There are many other forms of treatment but none of them do what occupational therapy is designed and equipped to do.

Let us examine some of these specific fields in sequence and since occupational therapy had its origins in the neuropsychiatric field, it may be appropriate to take that area first. The following comments are heavily weighted with the opinions and writings of recognized medical authorities in each field.

"Work has long been recognized as a useful means of diverting the mind from its troubles and anxieties. Occupational therapy employs this age-old concept in the treatment of nervous and mental disorders. . . . (It) is of increased importance in the treatment of neuropsychiatric disorders because it is practical, promotes a desire to want to get well, and assists in socialization. It is also an effective aid in restoring self confidence and a sense of security. Absorption in interesting, useful tasks, or in hobby interests, denied expression (in the hurried lives of many) are a means of putting in order disorganized thoughts. Occupational therapy substitutes constructive habits and outlets for tensions and may facilitate sublimation."[1] Other more radical forms of treatment procedure have come and gone. Occupational therapy has survived hundreds of years in this field and barring the discovery of a cure for neuropsychiatric disorders it will continue to prove of value in treatment programs for this type of patient. No other form of therapy currently in use in psychiatry today can adequately replace it.

Secondly, there is no substitute for occupational therapy in the treatment of tuberculosis. "One of the most indispensable contributions of occupational therapy to the medical effectiveness of a tuberculosis hospital is, and must remain, completely intangible. It is the stabilization of group morale, the constant and thoughtful promotion of good mental hygiene. . . . It may enable a tuberculosis hospital to function without the cumulative resistance and inertia with which a restless and rebellious patient population may add to other problems of treatment."[2] These remarks point up an important contribution on the psychological side but there are also physical considerations. Tuberculosis is a physically disabling disease despite the fact that there are fewer outward manifestations of disability than with the more tangible fields of orthopedics and neuro-muscular disorders. And there are other thoracic disorders besides tuberculosis. Conditions resulting from chest disorders that are pertinent are joint limitation and muscle weakness in the thoracic and shoulder areas, and general body weakness. For such cases the principle of occupational therapy is graded activity and there is no substitute for it currently available. Also important are the educational and pre-vocational activities available to patients in the convalescent stage. "Treatment of the ambulant patient is an area in which occupational therapy has achieved some of its most tangible achievements and some of its most notorious failures."[3]

Our third classification was that of cerebral palsy. There is no substitute for occupational therapy in the extensive retraining for these and other neuromuscular disorders, in the educational phase of the treatment program of the cerebral palsy patient, in the value of creative and manual activities for training in coordination and skill. "If in occupational therapy the child learns increased use of the hands, all other bodily functions will progress such as speech, leg use and educability. The neurologic reorganization necessarily involved in learning is so complicated and closely integrated that improvement as a whole results from any one improvement in function; for example, in order to improve the speech of the child, occupational therapy should be given to the arms and hands. . . ."[4] The contributions of the diagnostician, orthopedist, neurosurgeon, physical therapist and occupational therapist are those of specialists and are not self sufficient but are mutually interdependent in the successful achievement of a worth-while end result. That this is recognized is evidenced in the emphasis on a team approach which so characterizes our treatment program today in other fields as well as in cerebral palsy. Every patient should be given the maximum opportunity for improvement in each treatment specialty and there are no substitutes for any of

1. Barton, Walter E., War Department Technical Manual 8-291, "Occupational Therapy." Washington, D.C.: Government Printing Office, 1944, p. 55.
2. Hudson, H. and Fish, M., "Occupational Therapy in the Treatment of the Tuberculous Patient." New York: National Tuberculosis Association, 1944, p. 104.
3. *ibid*, p. 143.
4. Marsh, Henry O., "Assembling Forces for the Cerebral Palsied Child." *American Journal of Occupational Therapy*, Vol. IV, No. 2, 1950, pp. 56-58.

them, including occupational therapy.

And finally let us consider the fourth classification, that of upper extremity physical disabilities. For activities to therapeutically exercise, vocationally test, physiologically condition, while psychologically diverting, there is no substitute for occupational therapy. The hand is our particular province. Our media are specifically suited for treatment of the upper extremities through coordinated, related, purposeful, natural activities. "Occupational therapy is of real benefit in reconditioning crippled hands. It should commence soon after the wounds have healed and be continued until the patient is ready for work. . . . Improvement on use is a natural response to voluntary activity. Contrariwise to the degeneration of disuse, there is revivification of tissues on voluntary use and the will to do. Herein lies the superiority of occupational therapy. . . . (It) is purposeful activity with interest a goal ahead. . . . In occupational therapy, there is more to develop the coordination of muscles as a process of the cortex of the brain with a will to accomplish an act instead of to go through individual exercises."[5] There is no substitute for occupational therapy in a treatment program as dynamic as that indicated by this author. Of the upper extremities, the hand is the important part but occupational therapy can be equally indispensable in the treatment of other parts of the arm.

For the rest of occupational therapy? Time must determine its value. This is not to say that all other efforts and fields of occupational therapy are useless. There are many evidences that our profession is making worth-while contributions in other fields which can be identified by inference. I would repeat however that we cannot afford to continue to weaken our more tangible and valuable contributions by spreading our inadequate numbers so thinly that we cease to become effective in any one area. The same theory applies also to the activities which are our media. We are teaching far too many on the clinical level. The result is that we are jacks of all trades and proficient in none. Economically also it would be preferable to have a department well equipped and the therapist well trained in a limited number of activities than haltingly, superficially acquainted with dozens of minor skills. I believe we would win increased respect of the patient and of the rest of the medical profession if we would contract to the point of greater effectiveness in a more limited field.

Strength derives from a determined course set on an achievable objective and pursued with concentrated effort. We cannot afford to dissipate our forces in too many directions or we will never be really effective in any. Occupational therapy has come of age. It now needs the maturity that should characterize age. We must show judgment, insight, ability to evaluate and then the wisdom to revise our approach and concentrate on consolidating our gains to date. They have been considerable. They must, in the year immedately ahead, be even greater. These are the directions I think they should take. We must have the foresight and wisdom not to wait and follow but to lead the field in them.

I have chosen this morning to speak critically and frankly to you. I have presumed to stipulate the direction I believe our future efforts should take and to imply, by omission, disregard for some of our present practice. Although I am willing to assume responsibility for all that I have said, bear in mind the fact that the theme itself and many of the remarks reflect the suggestions and criticisms of others collected, sorted and—with belief in their validity—passed on to you. Think also if you will of the literature (that written by ourselves and others) on occupational therapy. The overwhelming majority of it concerns these fields. And think too of the most frequent criticisms of occupational therapy. By and large they refer to it as "diversional" or criticize its non specific nature. Occupational therapy is less diversional and more specific in the fields ennumerated than in those omitted. I urge you to honestly examine your own convictions in this matter and to weigh these thoughts carefully before tossing them off in disagreement.

I cannot conclude without expressing sincere regret in resigning my position as executive director. The last four years have been among the most enjoyable as well as certainly my most profitable in occupational therapy. My sincere thanks to all of you for your wonderful professional support in the years past and my best wishes to you and your incoming executive director for the years ahead.

Respectfully submitted,
WILMA L. WEST, O.T.R.
Executive Director.

5. Bunnell, Sterling, "Occupational Therapy of Hands." *American Journal of Occupational Therapy*, Vol. IV, No. 4, 1950, p. 148.

September 11, 1951.

*Annual Report of Educational Field Secretary**

The educational research program, so ably planned by the former educational field secretaries, has continued its steady development during the year 1950-51. This has been made possible financially through the continued careful expenditure of the residue of the Kellogg Grant and by the support of a current research study by the Grant Foundation. The stamp of approval by the board

* Read at the General Session, 34th Annual Convention, Wentworth-by-the-Sea, Portsmouth, New Hampshire,

of management, the able administration of the executive director, and the unfailing and we are glad to say, critical cooperation of you, the members, have contributed extensively to the success that has been attained.

The following is a summary of the year's accomplishments.

The preliminary work on the Student Selection Instruments, done in 1949, included a basic study of standard selection inventories, survey of previous selection methods of occupational therapy schools, development of the items and securing the criterion ratings on the "guinea pigs." During September and October 1950, 340 practicing therapists participated in the research study by answering 964 items in the questionnaire. The two participant categories were: group I, 104 therapists who had been practicing 5 to 10 years; group II, 236 therapists who had had less than 3 years experience. Upon receipt of tests, they were scored, analyzed, cross-checked between the two criterion groups and interpretive data compiled.

During the next two months the questionnaire's 964 items were revised. The objects of the study were to establish: first, a curve of responses typical of practicing therapists; and secondly, to develop questions which would be discriminating between successful and unsuccessful O.T. practice. Each answer was evaluated with these in mind. With the assistance of the "guinea pigs," by their candid comments on the questionnaire, combined with the data derived from the analysis, many changes were made both in the type of questions asked as well as the material used. Those items that did not discriminate were deleted while others were transferred to different sections where they were reworded to secure the desired information. Since an overall picture of a successful therapist was desired, the questionnaire covered many phases of life including biographical data, participation and degree of skill in various activities such as sports and crafts, personality adjustment and interest in five ancillary fields. The items, now 857, were reprinted into two booklets with the answer sheets revised in keeping with the previous changes.

During June, July and August, 332 sets of the questionnaire were mailed to a second group of "guinea pigs." These were almost equally divided into two groups—those registered in 1949 and those in 1950. At this time the student selection research study is, roughly speaking, at the two-third point of its three year course. The projected plans for the remaining year include: 1. completion of the analysis, now in progress, of the second trial run of the questionnaire; 2. revision of the forms on the basis of data obtained; 3. procurement of criterion ratings on the ensuing group of "guinea pigs," the senior occupational therapy students; 4. administration of questionnaire to this group; 5. analysis of data; 6. revision of booklets for final time; 7. release to the schools in August, 1952.

An unexpected by-product developed from this research study, namely the Career Inventory. This consists of 382 items selected from the questionnaire since they present a positive picture of the therapist practicing today. These questions had been chosen by the majority of the participants as being true of them or their behavior. On this basis then, it was felt that the material would be useful to the schools in student selection until the research on the student selection instruments had been completed. This questionnaire, when completed by a prospective occupational therapy student, will be used by the interviewer to direct further questioning as well as to form an indicative evaluation measurement of the occupational therapy potentialities. A key for scoring and analyzing the answers will be furnished to the schools with the inventory questionnaire.

The registration examination was conducted twice during the past year for a total of 439 applicants. Following usual procedure, detailed preparation preceded each administration. Briefly this entailed a review of every item to determine its retention value on the basis of difficulty and discrimination, then a revision or replacement of those not acceptable.

In addition to the written examination you are aware that achievement in clinical training receives a 20% weight in the total registration computation. If you are in a clinical training center or school you also know that the clinical training report form was recently revised and has been in use for almost a year. An intensive study was therefore made this summer of the data available to date. For the February administration there was a sufficient number of both old and new forms on most of the students to warrant an investigation to determine the changes, if any, produced by the new form. In the case of 134 out of the 203 examinees studied it was evident that the old form produced a mean of 11.8 which was well above the average point of the scale and with a spread of 1.3. The new form used with the same students (as a group) showed a mean of 7.22. This value when converted to the old scale yielded the equivalent of 11.8. This indicated that "haloing" and use of only the upper ⅓ of the scale has continued. Further study was made to determine whether any particular area or order of affiliation was a strong factor in producing the high ratings. With respect to the latter, no noticeable differences were evident. The data was then combined for a study of the disability areas.

This revealed that the highest ratings were given in the tuberculosis area with the orthopedic and psychiatric areas following in order. Dis-

regarding these slight differences, all areas achieved a mean rating of 7 which again demonstrated the use of only ⅓ of the scale. It is encouraging to note that there has been a very slight drop for the average rating scores in the June reports.

The greatest reduction took place in orthopedics and pediatrics with psychiatry and tuberculosis next. There was relatively no change in the area of general medicine and surgery. The spread has also changed somewhat in that almost all of the top *half* of the scale was used in June instead of only the top *third*. But at this rate, with the concentration in one section of the scale. the clinical training score cannot possibly contribute its rightful share to the registration examination grades. The analysis shows that 43% to 60% of the clinical training ratings are in the 85 percentile group or above while the theoretical percentile distribution shows only 8% rated on that level. This concentration of scores should be in the "4, 5, 6" category instead of the "7, 8, 9" category which is currently so heavily weighted. A great deal of education in the rating process must continue in order to obtain valid student clinical training reports.

Administration of the Michigan Vocabulary Test was authorized by the registration committee in conjunction with the February and June registration examinations. The purpose of this additional test was to determine the relationship between score on vocabulary with grade on written examination. The results, so obtained, would be useful to the schools in that if both the vocabulary and registration examination were low perhaps the method of student selection needed to be revised; if on the other hand the vocabulary score was high and that of the registration examination low possibly the instructional pattern required strengthening. It was decided to include all examinees for the year in order that each school receive a more valid picture resulting from a larger number of participants. As this study is still in progress data will be released to the schools at a later date.

In 1949, a graph depicting the relative standing of the students of each school on the first four administrations of the new objective type examination was presented. This indicated not only the school's position on the individual examination but also on the four collectively. We have repeated this process covering the four examinations of 1950 and 1951. As before, an area analysis accompanies the total score report, thus making it possible for each school to determine wherein lie its own strengths and weaknesses. This material is set up as before in coded form for distribution to the schools.

Before considering another phase of the education work there is one more facet of the registration examination to be mentioned. As many of you can testify, a drive was instigated in February to obtain questions for a fourth examination and replacements for items drawn from the pool. The response was very good, both as to number cooperating and the quality of material presented. The Item Writer's Manual prepared last year is paying dividends. We congratulate you on your application of the principles of item writing. As the registration committee has almost completed reviewing these items, another drive will be forthcoming this fall. It is expected that sufficient material will be obtained at that time to complete the fourth examination; then we will let you rest from such labors.

A committee to evaluate occupational therapy departments was established in 1949 by the subcommittee on clinical training. At that time the committee initiated a pilot study to determine a method of evaluating occupational therapy departments and their clinical training programs, as well as to establish the basic criteria for measurement of departments. On the basis of an analysis of the 46 completed questionnaires, Part I (Evaluation of the Department) of the three part study has been revised by the committee and national office personnel. At the same time a self scoring sheet was devised to accompany this section. The remaining two divisions will undergo similar revisions during the coming year.

This study developed primarily from a need expressed by the clinical training group for a means of appraising the clinical training program. As an attempt to evolve an objective method of evaluation, it is anticipated that this will not only strengthen the teaching program but may also have other far-reaching results.

During the past year meetings with the officials of the National Foundation for Infantile Paralysis have been held as a result of an application from the American Occupational Therapy Association for funds to support a publicity project. This was rejected on the basis that there was a greater need, per se, to determine the effectiveness of our O.T. curriculum, particularly in the physical disability area. Based on further joint meetings, advice from a group of occupational therapists and various investigations, the proposal for a 3-point study evolved. This has been resubmitted to the Foundation. Part I of this proposed study will be a job analysis to determine what an occupational therapist does. Part II comprises a curriculum investigation based on Part I, to decide if there is over teaching and/or under instruction to meet the daily needs of the practicing therapist. Supplementing this examination of didactic instruction, Part III proposes investigation of the clinical phase of student instruction. It is expected that an answer

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PEOPLE YOU SHOULD KNOW

LOUIS B. NEWMAN, M.E., M.D.
A Biographical Sketch by
ELIZABETH JAMESON, O.T.R.

Dr. Louis B. Newman, Chief of the Physical Medicine and Rehabilitation Service, Veterans Administration Hospital, Hines, Illinois, was born in New York City, but has lived most of his life in the city of Chicago. As a prelude to his medical career he received his degree in mechanical engineering from the Illinois Institute of Technology, Chicago, in order to be more adequately prepared for the specialty of physical medicine and rehabilitation which he had decided was to be his life's work. Dr. Newman received the degree of Doctor of Medicine from Rush Medical College, University of Chicago, and continued his training with an internship at Cook County Hospital in the same city.

During the hospital assignment at Cook County, Dr. Newman contributed generously, from his background and knowledge of engineering and medicine, to research in pelvic heating and hypothermy; he developed apparatus for local and general hypothermy, and received a special award in 1939 for cryotherapy from the American Congress of Physical Medicine. During the same year an article entitled "An Improved Method for Applying Pelvic Heat Using Air" was published in the *American Journal of Obstetrics and Gynecology,* October, 1939, also an article entitled "Intravaginal Treatment of Pelvic Inflammation by Controlled Superheated Air" was published in the *Archives of Physical Medicine,* November, 1939.

Following Pearl Harbor, Dr. Newman enlisted in the Navy and received the rank of Commander, Medical Corps, U.S.N.R. He served as head of the department of physical medicine and rehabilitation at the Naval Hospital, Oakland, California, and later in Seattle, Washington. As a naval commander, Dr. Newman not only administered an effective and progressive physical medicine service in the two above mentioned hospitals but continued his research and experimental work in high frequency currents, vacuum tubes and various electrodiagnostic and electrotherapeutic devices. He wrote several articles for the *U.S. Naval Medical Bulletin,* namely "Exercising Device for Increasing Joint Action," September, 1944, and "Method for Producing Soapy Solution in Whirlpool Tank," May, 1946. In addition an article entitled "Organization, Management and Operation of a Naval Physical Therapy Department" was published in the *Archives of Physical Therapy,* February, 1944.

In 1943, Dr. Newman was appointed Navy member, Committee of Cooperation with the Army, Navy, Public Health and Veterans Administration, for the American Congress of Physical Medicine.

In March of 1946, Dr. Newman was placed on inactive duty by the Navy and returned to his home in Chicago to take up his newly appointed duties as chief of the physical medicine and rehabilitation service at the Veterans Administration Hospital, Hines, Illinois, a position in which he so admirably and capably continues to serve. At the same time he was appointed associate professor of physical medicine at Northwestern University Medical School, Chicago. In 1948 he was appointed chairman of the midwestern section of the American Congress of Physical Medicine.

In addition to his innumerable responsibilities at Hines, which is the largest service of its kind in the Veterans Administration as well as a training center for doctors specializing in physical medicine and rehabilitation and for students in occupational or physical therapy, Dr. Newman has managed to maintain a dynamic interest and participation in the progressive development of occupational and physical therapy. He has invented the Thermo-Flo machine for pelvic heating; the Myometer for measuring muscle strength and the Chest Expansometer for measuring chest expansion. He has worked very closely with the occupational therapy staff, sharing his engineering and mechanical knowledge in the development of as-

(Continued on Page 266)

FEATURED O.T. DEPARTMENTS

THE CURATIVE WORKSHOP OF RACINE

Racine, Wisconsin

G. MARGARET GLEAVE, O.T.R.

To open the doors of The Curative Workshop of Racine in a building of its own, completely paid for, designed and laid out for the best functional operation, furnished completely with the latest physical and occupational therapy equipment and financially sound for a two year demonstration program has been a road of hard traveling. There have been detours to take and obstacles to by-pass but the end results and how they were attained make this story dramatic.

It goes without saying that leadership is instrumental in the accomplishment of a project of this kind. From the beginning over three years ago, Mrs. John H. Batten, citizen of Racine, has been instrumental in its organization. She was chairman of the project committee of the Junior League of Racine, later chairman of the steering committee and the first president of the board of directors of the Curative Workshop of Racine which position she holds today. The Curative Workshop is a result of her vision and leadership and the enthusiasm she possesses which she has instilled in all those who have worked with her. The teamwork that has been exhibited throughout the organization period has made the Workshop an outstanding community project.

In the spring of 1948 the Junior League of Racine, after comprehensive consideration and discussion, accepted the project. With this step taken the problem of financing had to be tackled. Twenty thousand dollars was the amount set as their goal to buy equipment and deficit finance the Workshop for a two year demonstration period. During the next 16 months the League held two Follies, a charity ball, and a merchants' sale which netted them seventeen thousand dollars. But fully as important as the money raising was the publicity received from these fund raising activities and the interest and cooperation of those who worked with and contributed to the functions.

Two permanent means of fund raising were next established by the Junior League—the memorial fund and the Mother Goose fund—to which the sum of over four thousand dollars has been donated to date. The memorial fund provides a constructive means of commemorating a loved one who has died; whereas a certificate of the donation to the Mother Goose fund is an impressive gift to a mother and new baby.

Next in line, the league established a speakers' bureau for the purpose of gaining support from as many Racine organizations as possible. Short informative illustrated lectures were given by selected league members to church groups, unions, fraternal and civic organizations throughout the community. The league received enthusiastic response to this program in both financial and moral support for the Curative Workshop.

The steering committee met several times and made careful plans. Now with financial backing secured and with public interest aroused, they selected members and established a board of directors. The board of directors originally consisted of 15 seats, now enlarged to 18, of which three are held by league members; the remaining being held by citizens of the community including members from industry, labor and trade unions, the professions, and government agencies.

The board incorporated the Workshop as a nonprofit organization and took on the responsibility of procuring quarters and staff. The need as far as quarters was concerned was for a building near transportation, with ample parking area, on one level to eliminate steps, and as attractive as possible. The last requisite ties in with the principle aim of the Workshop. Since most patients coming to the Workshop have had treatment in hospitals and clinics it is desirable to minimize this type of atmosphere in the Workshop in order to prepare patients for their return to everyday living.

The board found nothing in Racine to answer these needs so the decision to build was made. The site of the Workshop is less than two-tenths of a mile from the bus line on Northwestern Avenue, has ample parking area, and six and one-half acres to grow on. The building has no steps or difficult inclines, and is attractive on approach and is made extremely pleasant inside through the introduction of color. The floor plan provides for a straight path for patients to follow in their treatment, with no back-tracking and no confusing corridors. All this adds to the effectiveness of environment on the patient's attitude because it presents surroundings to which one can easily adjust.

Outstanding among the board's activities to raise funds for the building was a dinner held in

August, 1950, for the building suppliers of Racine and vicinity. The blue prints of the floor plan and architect's drawing of the exterior were presented to them and their help solicited. The spontaneous response from the building suppliers who offered either complete or partial donations of time and material for the construction of the building was most gratifying and heartwarming.

The board of directors approached the Racine County Medical Society for the names of six physicians to serve as a medical advisory committee. This committee was appointed in May, 1950.

The board then secured personnel for the Workshop. The writer, Miss G. Margaret Gleave, O.T.R., is Executive Director and Chief of Occupational Therapy, and Miss Margaret Hoelzl, R.P.T., Chief of Physical Therapy.

During the winter months the staff was engaged in organizational activities such as ordering supplies and equipment, setting up administrative procedures, meeting with board committees and meeting key personnel of other agencies in the community. The building construction was followed closely and a great deal of time was spent in the selection of materials and colors.

The opening day of the Workshop was April 16, 1951, and through July over forty patients referred by twenty-five physicians have received over 600 treatments. Seventy percent of the treatments are being given to patients receiving both physical and occupational therapy, demonstrating clearly the need for the services of a curative workshop in the community.

The challenge that exists to perpetuate the philosophy of those who have made the Curative Workshop possible is a real one. The continued teamwork of the board of directors, Junior League, staff members, and the community at large is the answer to this challenge.

EDITORIAL

A BARGAIN

Occupational therapists are versatile and adequate in any emergency. Our association was formed because these attributes were evidenced by a stalwart group of workers in World War I. These pioneers have passed on these characteristics to stand us in good stead today.

And we need these traits as definitely today as we have ever needed them. We are a growing, developing organization accomplishing the impossible on a small budget in the face of ever rising costs.

It is true we have just raised our dues but the accomplishments of the past few years evidenced a greater participation than the nominal raise in dues indicate.

We have expanded the activities of our national offices phenomenally. Occupational therapists throughout the country have all benefited by these activities. We have added an educational field sceretary who does much more than merely supervise our registration exam. We have assumed publication of our own magazine. We have expanded our committee activities and all on a balanced budget that continues to be lower than any other association would consider possible.

All this has been possible because of the active interest and cooperation of the members of the association and because of our marvelous heritage —*nothing is impossible to an O.T.*

We owe a vote of thank to the board of management, to our president and to our executive director past and present and to our shrewd and dominant treasurer. But their accomplishments are possible because O.T.'s are what they are. Only fertile ground could cultivate and produce the type of leaders which we have been so fortunate as to produce. And without these leaders we could never have accomplished on such a small budget the national growth to such a high professional level which permits a feeling of pride in every O.T.

AWARDS OF MERIT

Two esteemed occupational therapists received well deserved awards of merit from the American Occupational Therapy Association at the annual convention at Portsmouth, New Hampshire, in September.

Mrs. Marjorie B. Greene, President, Boston School of Occupational Therapy, received the following citation embedded in plaster: *Your leadership, dynamic energy and foresight as one of the original and continuing builders of the profession of occupational therapy have helped set the foundations from which have emerged the strength and the leaders of today. Your breadth of vision and unfaltering sincerity of purpose have been of profound influence in guiding the medical profession toward an understanding and acceptance of the basic concepts of occupational therapy.*

Wilma L. West, O.T.R., retiring as executive director to join the Army as an occupational therapist, received the following citation also embedded in plaster: *With wisdom, vision, and dynamic leadership you have contributed immeasurably to the prestige and progress of the American Occupational Therapy Association. Your constant and selfless devotion to the aims and principles of our profession have been an inspiration to occupational therapists everywhere. Through your counsel, initiative, and diligent efforts you have advanced the recognition and*

understanding of occupational therapy.

It was most fitting that the two awards be given to occupational therapists active in the field whose influence and guidance will continue to help the future growth of occupational therapy.

Aphasic Child

(*Continued from Page* 243)

cedure. The same sort of difference can be seen in performance with object assembly, or puzzle, items. Deficient children may spend many futile minutes attempting to force a piece of a puzzle into a slot into which it could not possibly go (the "square peg in a round hole" type of thing). This kind of error is rarely found in aphasics with normal intelligence.

Correlative to the phenomena discussed above is the fact that the aphasic child's emotional reaction to a problem which he cannot solve is, to the examiner, obviously differentiable from that of the deficient child. The aphasic generally shows, by perseverating, by vasomotor changes resulting in flushing or pallor, by increased bodily movement and tension, that he is distressed and irritated by his difficulty in solving the problem. The deficient child, with some exceptions, will blandly muddle along, either unaware of, or indifferent to, his mistakes.

With further study and validation, the phenomena described here may be of value in determining the degree of trainability of the speechless or aphasic child. To some extent this can be done now, if the examination is oriented toward the acquisition of a picture of the child's total pattern of performance. The difference between a "hopeful" case and a "very doubtful" case is not the gap between I.Q. 65 and I.Q. 55 but the differences in the organization of modes of general performance.

The aphasic child has a syndrome of typical reactions which present difficult problems in testing and training situations. The occupational therapist, the psychometrist and, in fact, any clinician working with such a child must always be keenly aware of the manifestation and significance of these reactions. We have attempted to show how, by restructuring situations to meet specific reactions, by permitting the child to set his own working style, and by interpreting his behavior on the basis of what is known about reactions typical to the aphasic child, we can overcome some of the difficulties, gain a higher level of performance from the child and, perhaps of greatest importance, see some hope of rehabilitation in a child who may have at first seemed hopeless.

REFERENCES

1. Palmer Martin, F., "Aphasia and Occupational Therapy," "*Am. Jour. Occupational Therapy*, Vol. IV., No. 3.
2. Giden, F. M., M. L. Eno, E. C. Bosley, "The Occupational Therapist Discusses Aphasia," *Am. Jour. Occupational Therapy*, Vol. IV, No. 4
3. Strauss, A. A., L. E. Lehtinen, *Psychopathology and Education of the Brain Injured Child*, Grune and Stratton, New York, 1947.

Dr. Newman

(*Continued from Page* 263)

sistive devices for severely disabled persons and other types of adaptive devices used in rehabilitation.

In 1950, Dr. Newman became one of the organizers of the Chicago Society of Physical Medicine and Rehabilitation and was elected the first president of that organization. He is the author of several articles in addition to those previously mentioned. They are listed as follows:

"The Objectives of Corrective Physical Medicine," *Journal Association for Physical and Mental Rehabilitation*, January, 1947.

"Rehabilitation of Patients with Spinal Cord Injuries,"*Archives of Physical Medicine*, February, 1947.

"Special Hand Splints for the Disabled," *Archives of Physical Medicine*, December, 1947.

"Tracing Device for Surface Lesions," *Archives of Physical Medicine*, January, 1948.

"A New Device for Measuring Chest Expansion: Chest Expansometer," *The Physical Therapy Review*, March, 1949.

"Physical Medicine and Rehabilitation in the Veterans Administration," *Illinois Medical Journal*, August, 1950.

"Rehabilitation of the Tuberculous Patient in the Veterans Administration," Proceedings of first annual Tuberculosis Rehabilitation Conference, Chicago, Illinois, February, 1950.

Co-author with Louis J. Pollock, et al. "Management of Residuals of Injuries to the Spinal Cord and Cauda Equina." Read at the American Medical Association's annual session, San Francisco, California, June, 1950.

"Assistive Devices for the Disabled," *Occupational Therapy and Rehabilitation*, February, 1951.

"Electromyography," *Archives of Physical Medicine*, May, 1951.

Dr. Newman is also a member of the following professional societies, medical boards and organizations: American Board of Physical Medicine and Rehabilitation; American Medical Association; American Society of Physical Medicine; American Society of Mechanical Engineers; American Congress of Physical Medicine; Society of American Military Engineers; Association of Military Surgeons; World Medical Association; Illinois Medical Society; Chicago Medical Society; Medical Advisory and Consultant Board of the Armour Research Foundation of Illinois Institute of Technology; Health Division Committee of the Handicapped, Welfare Council of Metropolitan Chicago; Committee of Physical Medicine and Rehabilitation, Division of Vocational Rehabilitation of the State of Illinois; National Society for the Prevention of Blindness; Research Committee, North Central Conference of Functional Music; Ameri-

can Hearing Society; International Society for the Welfare of Cripples.

In addition to his busy professional life, Dr. Newman finds time in his appointment book for lectures and illustrated talks to various organizations interested in physical medicine and rehabilitation of handicapped people and for his hobbies of drawing and painting. He is truly a dynamo of energy and interest, admired by all who know him, but certainly difficult to keep pace with.

Educational Field Secretary

(*Continued from Page* 262)

to this proposal will be forthcoming in the near future and, if approved, the project will be reported further in succeeding issues of A.J.O.T.

Other than these specific studies, the education office has handled routine matters that by their very nature are classified as the responsibilities of this division of the national office.

In closing, I should like to express appreciation for the support of the president, executive director, and the board of management as evidenced in a variety of ways; to acknowledge with gratitude the contribution made to our profession by Dr. Hyman Brandt's direction of the research studies; to say many sincere "thank yous" to the various committee members, innumerable "guinea pigs" and those long-suffering item writers who have made the year's work possible.

Respectfully submitted,
MARTHA E. MATTHEWS, O.T.R.
Educational Field Secretary.

Spastic Hemiplegias

(*Continued from Page* 256)

Rusk, Howard A., "The Rehabilitation of the Hemiplegic Patient", *The New England Journal of Medicine*, Vol. 243 No. 18, November 2, 1950, pp. 690-693.

Snow, William, "Rehabilitation of the Hemiplegic Patient"*Occupational Therapy and Rehabilitation*, 29:477, December 1947.

Suckle, Henry and Carolyn Thompson, "Occupational Therapy in the Treatment of Neurosurgical Patients" *American Journal of Occupational Therapy*, 3;1;1 January-February, 1949.

Walshe, *Diseases of the Nervous System*, (1945) pp. 24-25.

Wechsler, *Textbook of Clinical Neurology*, (1947), pp. 302-306, pp. 356-359.

Willard, Helen S. and Clare S. Spackman, *Principles of Occupational Therapy*, (Philadelphia: J. B. Lippincott Co. 1947).

Yamshon, L. J., "Physiological Aid to the Functional Training of the Hemiplegic Arm", *American Journal of Occupational Therapy*, Vol. III No. 6, (November-December, 1949), pp. 286-288.

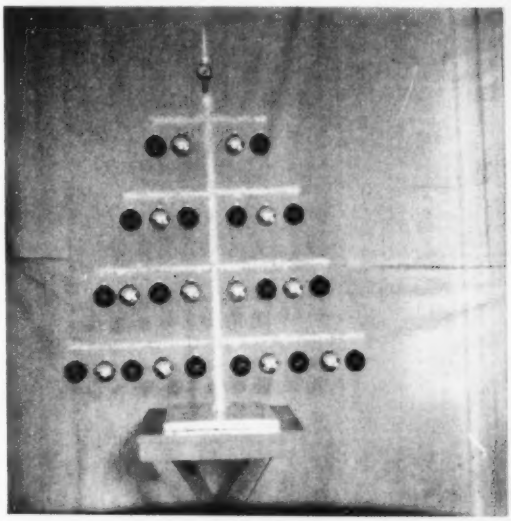
Yamshon, L. J., "Some Psychological Implications of the Tonic Neck Reflex in the Rehabilitation of the Hemiplegic", *Occupational Therapy and Rehabilitation*, Vol. 29 No. 2 (April 1950) pp. 83-85.

Yamshon, L. J. and O. Mackeck, and D. A. Covalt. "The Tonic Neck Reflex in the Hemiplegic", *Archives of Physical Medicine*. (Nov. 1949), pp. 706-711.

A SAFE AND HAPPY CHRISTMAS

Eloise F. Wood, O.T.R.,
Director O.T., Bangor State Hospital, Bangor, Maine

The City of Bangor, Maine, fire department forbids the use of evergreen trees in institutions and public halls for fear of a flash fire. As a result the occupational therapy department was given the problem of producing substitute decorations. Our solution of trees designed for a safe and happy Christmas may be helpful to other occupational therapists. All the materials used were fire resistant or fire proof.



DOWEL TREE

Materials needed: End of an orange crate 11-½" square
Tin foil from X-ray dept.
1 dowel ¾"x34-½"
4 pieces ¼" dowel cut in four lengths—32", 25", 19", 12"
28 ornaments or more
1 top ornament
25' double tinsel

Instructions: Bore holes in ¾" dowel for ¼" dowel 7-½" from end. Space other three holes 8" apart. Sharpen 1-¾" of dowel at tip to accomodate top ornament. Drive 32" dowel through bottom hole, 25" dowel through next hole, 19" dowel through next hole and 12" dowel through last hole. Arrange dowels so they are evenly divided by center dowel. The trunk is now ready to be glued in center of base and the end of an orange crate is ideal. Cover base with tin foil. Wrap tree with tinsel starting at the base, when completely wrapped hang on ornaments evenly spaced and complete with a top ornament.

WIRE TREE

Materials needed: ¾" Pine 8"x8"
9 pieces No. 10 telephone wire each 19-½" long, a discard
Two pieces of fine wire
Tinsel about 25 feet
2 to 4 doz. ornaments depending upon size and shape
Aluminum paint

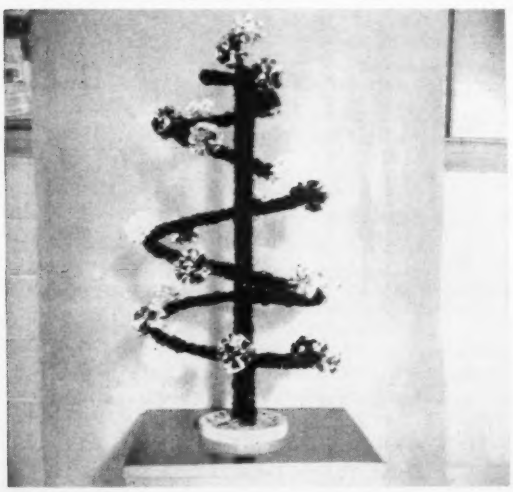
Instructions: Bore ⅝" hole in center of pine base and insert the 9 pieces of wire held together by wrapping of the fine wire. Continue wrapping the 9 pieces until 14" from base. Spread top ends of the 9 pieces of wire to resemble a tree. Wrap with tinsel (double tinsel makes a prettier tree). Trim with ornaments. Paint

base with aluminum paint and while wet sprinkle with tinsel crumbs.

SPIRAL TREE

Materials needed: Aluminum paint
2 to 3 doz. non breakable ornaments, red or green
Fire resistant cellophane rope
¾" Pine 6-½" in diameter
¾" dowel 26" long
10-½' telephone wire No. 10, a discard
Fine wire
A wooden jig made as follows of knock down wooden boxes. Bottom or first circle 9" diameter. Second, third and fourth circle graduated in size each 1-½" smaller in diameter. Last or fifth circle 3-½" diameter.

Instructions: Nail circles on top of each other, centers matching, except fifth circle which is nailed off center so edge comes even with edge of fourth circle. Bore a quarter inch hole through the top circle. At left edge of this hole in fourth circle drive a finishing nail leaving ½" showing of nail, repeat on third and second circles. The nails extend almost at a right angle from circle. To make tree put one end of wire in hole of fifth circle, then wind around each circle (the nails help wire from slipping off). Remove jig and bore fine hole at base of dowel. Insert fine wire through hole and secure bottom of spiral to base of dowel. Bend No. 10 wire at right angles to dowel for 6-½" and then begin spirals. Bore a hole ½" from top of tree and insert top end of wire and secure with fine wire. Wind tree with cellophane rope and trim. Paint base with aluminum paint and while wet sprinkle with crumbs of cellophane rope.



The No. 10 discarded telephone wire was given to us by the New England Telephone Company.

DELEGATES DIVISION

MINNESOTA

Delegate Reporter, Genevieve Anderson, O.T.R.

The Minnesota Occupational Therapy Association has grown to a membership of forty-five and attendance at the three regular meetings and other special events indicates that the members are extremely interested in current trends in the field.

The first meeting was held at the Swedish Hospital Rehabilitation Center in Minneapolis where Dr. Miland Knapp spoke on rehabilitation. Dr. Worden presented movies taken at the Center and a conducted tour of the occupational therapy and physical therapy departments followed.

The theme for the second meeting, held at the University of Minnesota, was "Teamwork in our State Hospitals." A stimulating panel discussion by Dr. Frank Keisler, Mrs. Bulfin, R.N., Miss Winifred Phelps, O.T.R., and Miss Virginia Buckwald, social service worker, turned the attention of the members toward the ever-present problems of recruitment of therapists and the establishment of high treatment standards in state institutions.

The third and annual meeting was held in May in conjunction with the Upper Midwest Hospital Conference in Minneapolis. The conference very generously provided the speaker of our choice, Dr. Allan Hurst of National Jewish Hospital in Denver. He spoke on "Rehabilitation Programs in Tuberculosis Hospitals" at a general meeting during the conference session and was aided by a panel of therapists employed in the tuberculosis services of three Minnesota hospitals. Dr. Hurst spoke on "The Role of Occupational Therapy in the Tuberculosis Setting" at the dinner meeting.

A special treat for the Minnesota O.T.'s was a visit by Miss Beatrice Wade of the University of Illinois. The purpose of her trip was to speak to administrators and employees of Anoka State Hospital giving them very valuable pointers on setting up activities programs, but Miss Wade very generously gave an additional presentation of her slides and a discussion of the evaluation and recording of patients' behavior for the local O.T.'s whom Sister Jeanne Marie had invited to the College of St. Catherine for the occasion.

M.O.T.A. has continued efforts for recruitment and publicity. There was an Open House at the new Heart Hospital at the University of Minnesota to which all high school seniors and vocational advisors in the area were invited. The A.O.T.A. Recruitment Exhibit No. 2 was displayed and guests were taken on tours of the hospital. The exhibit was later placed in eleven Twin Cities high schools for periods of two days each. Occupational therapists from the Heart Hospital, St. Paul Rehabilitation Center and a therapist and Arts and Skills volunteer from V.A. Hospital appeared on television shows. O.T.'s from St. Paul and Minneapolis competed on the radio show,

"Quiz of the Twin Cities," and managed to get in a few plugs as well as the prize money as loot for the treasury. A permanent O.T. exhibit was started and had its first showing at the Upper Midwest Hospital Conference. In the spring a picnic was held in honor of the senior students in our two O.T. schools. Out-of-state students affiliating in Minnesota clinical training centers were also invited.

The association suffered a great loss in the death of Grace V. Johnson, O.T.R., our very good friend and devoted therapist who passed away last spring following a long illness. In her memory, the association contributed to a fund to be used for the purchase of special equipment for Michael Dowling School for Crippled Children, where Grace served for many years.

OFFICERS

President	Mrs. Susan Mahan, O.T.R
1st Vice Pres.	Miss Winifred Phelps, O.T.R.
2nd Vice Pres.	Mrs. Elsie Anderson, O.T.R.
Recording Secretary	Miss Martha Kitaoka, O.T.R.
Corresponding Secretary	Miss Mildred Henly, O.T.R.
Treasurer	Miss Gyla Fairchild, O.T.R.
Delegate	Miss Genevieve Anderson, O.T.R.

WASHINGTON

Delegate Reporter, Mr. Laurel V. Nelson, O.T.R.

So you think that you've travelled,
To places before.
Yet the Pacific Northwest holds a
Wide open door.

We're young and progressive,
We're all on the go.
So read this report,
There are things you should know.

The Washington Occupational Therapy Association has its own bimonthly publication entitled *W.O.T.A. Life*. This publication has a circulation of sixty. It keeps members and former members of the association well-informed as to current membership, coming association meetings, recently formulated state policies, and a digest of information of a national nature. In our present membership we have 37 active and 13 associates, these people being employed in 23 institutions throughout the State of Washington. During the past year, new registered occupational therapy positions were established at Providence Hospital, and V.A.H. (GM&S) Seattle, Wash., and V.A.H. (GM&S) Spokane, Wash.

The placement committee has continuously handled many listings of professional opportunities throughout the State of Washington. This committee has been of the utmost importance because of the increased demand for O.T.'s in this area. There are at the present time 7 excellent opportunities available in the State of Washington. Information relative to these positions may be obtained by contacting Miss Lucile Derby, Washington Occupational Therapy Association, at the U.S. Cushman Indian Hospital, Tacoma, Wash.

The Western International Conference of O.T.'s in conjunction with the P.T.'s was held May 25 and 26 at Vancouver, B.C. Fifteen O.T.'s from the State of Washington attended this conference. The executive committee of the W.O.T.A. actively participated in the planning and functioning of this conference. The 1952 conference will be held in June at Portland, Oregon.

As in previous years, the O.T.'s and the P.T.'s combined to present an aggressive and enlightening educational display in the Hall of Health, at the Western Washington State Fair, held in Puyallup, Wash. Copies of the national occupational therapy brochure were distributed to interested prospective candidates during the week of the Fair.

1st Lt. E. E. Eichler, Chief Occupational Therapist, Madigan Army Hospital, headed a committee which, during the winter of 1950-51, conducted a survey of libraries and high schools within the state and found little information available pertaining to O.T. Therefore the Washington Association established as its project of the year to formulate, fabricate and distribute a brochure on O.T. This brochure was specifically directed to the graduating high school senior to provide them with the pertinent facts, opportunities and procedure to be taken to enter the field of O.T. This 12-page brochure was fabricated on heavy blue paper by a combination of silk screening and printing. The words and appropriate cartoon illustrations were in contrasting colors. Copies were sent to all high school principals througbout the state for distribution to their student counsellors to promote and stimulate interest in O.T. as a profession. Other copies were sent to hospital superintendents and auxiliary groups to integrate our relationships.

Major Myra McDaniel who has been chief of occupational therapy at Madigan Army Hospital, was transferred to Fitzsimons Army Hospital, Denver, Colorado. During her three years as president of the Washington Occupational Therapy Association she has been responsible for the development of one of the most progressive O.T. groups in the West. Her departure will be a definite loss to all of the members of this association.

In addition to the stated activities the association held its regular bimonthly meetings. A winter get-together was held at the Hotel Edmond Meany, Seattle, Wash.; spring meeting at V.A.H. American Lake, Wash.; summer picnic meeting near Des Moines, Wash.; and our "Yearly Over the Mountain" meeting at V.A.H. Spokane, Wash.

OFFICERS

President	1st Lt. Evelyn E. Eichler, O.T.R.
Vice President	Mrs. Janet Loutzehiser, O.T.R.
Secretary	1st Lt. Winifred Watson, O.T.R.
Treasurer	1st Lt. Barbara Fillmore, O.T.R.
Delegate	Mr. Laurel V. Nelson, O.T.R.
Alt. Delegate	Mrs. Dorothy Kromer, O.T.R.

Book Reviews

CORRECTIVE THERAPY FOR THE HANDICAPPED CHILD

Eleanor B. Stone

John W. Deyton, M.D.

Published by Prentice-Hall, Inc. New York, 1951
62 Illustrations, 307 pages, $3.75
Reviewed by: Frances Stakel Nelson

Collaboration between a doctor and a teacher brings forth this volume which is designed as a text for those in the field of rehabilitation in the school.

Rehabilitation in the physical education program is dealt with first in excellent chapters on its organization and administration.

Before discussing any spscific physical defects the authors treat the social adjustment and mental health of the handicapped child and point out ways of assisting such children.

Consideration of posture deviations is next with special emphasis on testing posture and specific remedial exercises.

To an occupational therapist the chapters which discuss the particular problems of poliomyelitis, epilepsy, cardiac conditions and cerebral palsy are significant as many of the suggestions made are applicable to a therapy program.

In the concluding chapter the authors briefly mention

a number of other deviations of school children, namely: hearing and speech defects, osteomyelitis, impaired eyesight, diabetes, tuberculosis and congenital anomalies.

PRIMARY ANATOMY

H. A. Cates, M.B.
Published by
The Williams and Wilkins Company, Baltimore
405 Illustrations, 344 pages, Second Edition, 1951
Reviewed by: Frances Stakel Nelson

With years of teaching as a background Dr. Gates has formulated a text which is aimed specifically at presenting a knowledge of human anatomy to the non-medical student.

Following an introductory chapter on the beginning of life and an explanation of the division of the body into eleven systems each system is described separately.

The skeletal, articular, muscular and circulatory systems are treated in greater detail than the respiratory, urinary and generative systems, and the nervous system is treated with paramount importance.

Simple schematic illustrations abound and of particular note are those of the muscles. Each muscle is graphically displayed in illustrations which were taken from originals by the author used in teaching origins and attachments to physiotherapists in World War I.

From every viewpoint this edition is suited to the needs of the occupational therapist and this reviewer recommends it without reservation for the personal or departmental library.

LET'S CELEBRATE CHRISTMAS

Horace J. Gardner
Published by
A. S. Barnes and Company $2.50
Reviewed by: Wanda Edgerton, O.T.R.

A book of legends and customs of Chrstmas as celebrated in many countries, a chapter of the old and best loved Christmas poems and stories, two short plays, the music and words of fifteen of the well known carols, games and ideas for Christmas parties, even recipes for Christmas goodies which are traditionally a part of the festivities in countries all around the world — here is material for the entire holiday season, adaptable to many ages, and all within the covers of one small book.

THE JOY OF HAND WEAVING

Osma Couch Gallinger
Creative Crafts
Guernsey, Pennsylvania
Published by
International Textbook Company, 1950
306 pages, $5.50
Reviewed by: Frances Stakel Nelson

Written by an experienced craftsman in a direct and appealing manner, this book contains much material of interest to both the therapist and the patient.

It is the sort of volume which will be of special help to the beginning weaver. The learning processes in weaving are simplified through the use of many illustrations, diagrams, and practical suggestions. At the same time, it is well suited for the hand weaver who needs guidance in the more advanced weaves.

Part I begins with the story of kinds of threads and continues with discussions of simple weaving techniques including tapestry, braid weave, two-harness and laid-in weaving.

Part II is devoted to fundamentals of pattern weaving. Of particular value to the therapist are sections on designing drafts, planning borders, a thread chart of proper thread settings for wearing apparel and household fabrics, and complete instructions for weaving neckties.

A listing of companies handling all types of weaving supplies is included in the appendix.

RETIRE AND BE HAPPY

Irving Salomon
Published by
Greenberg, Publisher $2.95

Here is a book that offers practical assistance and sympathetic understanding and comfort to the man contemplating—or worrying about—his retirement. It is written by a man who, himself, is retired and it contains the reflections and case histories of 405 other retired men from all income brackets from the most modest to the highest. The author deals with the importance of careful planning for retirement, the misconceptions that surround the idea of retirement, what retirement can do for a man, the proper age for retirement, health, hobbies, philosophy, how to make a success of retirement and, in addition, that often neglected facet of the problem, the wife's place in retirement. *Retire and Be Happy* can be read for pertinent and valuable instruction, or for sheer entertainment and pleasure.

PHYSIOLOGY OF HEART AND CIRCULATION AND ITS CLINICAL APPLICATION IN PHYSICAL MEDICINE

A SYMPOSIUM
Presented at the annual conference of the
American Physical Therapy Association
Cleveland, Ohio, June 26-30, 1950
Published by
Livingston Press, Livingston, New York.
63 pages, published 1950.
Reviewed by: Frances Stakel Nelson

This single volume contains eight papers which were coordinated by Harry D. Bouman, M. D., with the intent of stressing the importance of knowledge of the function of circulation in the clinical application of physical medical procedures.

Although the majority of the papers discuss physiological facts which will be of primary interest to the physical therapist and the physiatrist, the paper entitled, *The Heart as a Factor in a Clinical Exercise Program* by Harry D. Bouman, M. D., contains material applicable to occupational therapy. This paper includes a report on an experiment conducted by Dr. Ancel Keys, of Minnesota, on the effect of prolonged bed rest in the cardiovascular system of six normal subjects and treats the value of a bed exercise program for heart patients.

PREVENTIVE AND CORRECTIVE PHYSICAL EDUCATION

Revised Edition
George T. Stafford, Ed.D.
Professor of Physical Education
University of Illinois
Published by
A. S. Barnes and Company, New York, 1950, $3.75
Reviewed by: Isabel March Kellogg, O.T.R.

The text gives a wealth of information and assistance for the individual in giving the proper type of physical education to the handicapped person with consideration of his needs and abilities. This revised edition has deleted superfluous material and has included much valuable material which the author gained as civilian consultant to the Navy rehabilitation school and hospital program in World War II and later as consultant to the Surgeon

General of the Army and Bureau of Medicine and Surgery of the Veterans Administration.

The author takes into consideration the greater interest in physical education today for both the normal and handicapped individual, with emphasis on the necessity for prevention of further handicaps.

A new section on poliomyelitis and cerebral palsy has been added to provide assistance to those in the field. There are excellent reference lists at the end of each chapter.

AMBULATION

Physical Rehabilitation for Crutch Walkers
Kenneth A. Dening, M.Ed., Frank S. Deyoe, Jr., Alfred B. Ellison
Cushing V.A. Hospital, Boston City Hospital and Medford Ambulation Clinic
Published by
Funk and Wagnalls Co., New York, May, 1951, $3.50
Reviewed by: Isabel March Kellogg, O.T.R.

The authors have written this manual to present illustrated and well written descriptions of the basic techniques to be used to enable a severely disabled person to perform daily activities. The text includes the adjustment of crutches and characteristics of good crutch equipment; information to give the instructor confidence in himself and aid him in helping the patient; bed activities for the preparation of the patient as soon as possible to ward off deconditioning and to make the person capable of caring for most of his own needs within the confines of the bed; wheelchair activities for the patient who has been able to leave his bed; mat exercises; preliminary ambulation training for the development of the sense of balance which is so necessary for efficient crutch walking; crutch gaits, changing direction, going through doorways, ramps, stairs, curbs, chairs, automobiles.

This is an extremely valuable manual with clear, concise directions and excellent illustrations. It presents a complete, tested rehabilitation program for paraplegics. The material has been taken from medical literature and from the wide experience of the authors as is shown in the detailed bibliography.

LEATHER—TOOLING AND CARVING

Chris H. Groneman
Professor of Industrial Education
and Head of the Department
Agricultural and Mechanical College of Texas
Reviewed by: Isabel March Kellogg, O.T.R.

The author has done a fine piece of work in presenting the basic information about leathers and tools used in leather tooling and carving. There is a well and profusely illustrated section on the various processes used in the craft with clearly written details of each. Alternate methods are given in order that the craftsman will be able to branch out from the outlined basic steps.

This is a volume which would do well in a department library as reference for therapist and patient.

CRAFTS FOR EVERYONE
Volumes I and II

Louis V. Newkirk, Ph.D.
Director, Division of Industrial Arts
Chicago Public Schools
Lavada Zutter, M.A.
Illustrator and Former Teacher of Arts and Crafts
Chicago Public Schools
Published by
International Textbook Company, Scranton, Pa., $2.25
Reviewed by: Isabel March Kellogg, O.T.R.

Volume I contains: woodcraft; metal craft; and leathercraft. Volume II contains: plastic craft; applied designs; textile art; and paper crafts.

These two volumes provide a wide assortment of projects. The tools and supplies may be found readily in most communities. The descriptions and illustrations are easy to follow and are made so in order to aid the young craftsman as well as the more experienced.

There are excellent bibliographies at the end of each section and each volume contains a representative list of supply houses where materials and equipment may be purchased.

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Classified advertising accepted for POSITIONS WANTED and POSITIONS AVAILABLE only. Minimum rate $3.00 for 3 lines; each additional word ten cents. (Average 56 spaces per line). Copy deadline first of each month previous to publication.

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Applications invited from Graduate Registered Therapists, either man or woman, for a position of responsibility in a large psychiatric hospital in the East. Progressive, well organized department. Student training program, good living conditions. Civil Service and excellent opportunity for advancement for a therapist who has proven or can demonstrate ability. Outline experience first letter. Write O-5, American Journal of Occupational Therapy.

Occupational Therapists for large psychiatric hospital located in New England. Progressive, all-inclusive program for patients. Student affiliations with excellent educational program. Modern home, good food. Maintenance optional. Liberal retirement plan and illness policy. Paid vacations and holidays. Write to Director of Occupational Therapy, Norwich State Hospital, Norwich, Connecticut.

Excellent opportunities for registered therapists in the occupational therapy and rehabilitation programs in New York State department of health tuberculosis hospitals. Liberal vacation, holidays and sick leave. Salary $3389-$4148. Write Supervisor of Occupational Therapy, Division of Tuberculosis Control, 28 Howard Street, Albany 7, New York.

OCCUPATIONAL THERAPISTS — positions available at the Fairfield State Hospital, Newton, Conn. Active, extensive program; clinical training center; recent salary increases; forty-hour week. Apply to Superintendent.

Occupational therapist wanted for 3,000-bed psychiatric hospital. Clinical training affiliations; excellent opportunities for study and research. Maintenance optional; paid vacations and holidays. Retirement plan. Write for details and mail qualifications to: Inez Huntting, O.T.R., Head Occupational Therapist, Boston State Hospital, 591 Morton Street, Dorchester 24, Mass.

Occupational therapist for functional rehabilitation wanted immediately. Starting salary $2800 if living in nurses' quarters and $2900 if living out, five day work week, one month vacation yearly. Apply Miriam Rehabilitation Hospital, 501 Bacon Avenue, St. Louis 19, Missouri.

Three occupational therapists wanted in a progressive psychiatric teaching hospital. Civil Service, vacation and sick leave with pay, maintenance on grounds, good living conditions. Write to Miss Margaret Waters, O.T.R., Supervisor of O.T., Cleveland State Hospital, 4455 Turney Road, Cleveland 5, Ohio.

Position open for registered occupational therapist in PRIVATE NEUROPSYCHIATRIC HOSPITAL. Active treatment and training center—160 beds. Write Mrs. E. S. Owen, O.T.R., Director of O. T., The Seton Institute, Baltimore 15, Maryland.

OCCUPATIONAL THERAPIST for small licensed psychiatric hospital in Westchester County. Live in or out, as preferred. Salary open. Give training, experience and references. Write to Pinewood Sanitarium, Katonah, New York.

Wanted: Occupational therapy department director, qualified in functional therapy and in supervising student training program. Apply to Personnel Office, Denver General Hospital, Denver, Colorado.

Occupational Therapist: Salary $3635-$3931. To direct program at Detroit Receiving Hospital which serves as training center for a university medical school. O.T. student training program to be organized. Civil service benefits; liberal vacation, holidays, sick leave. 40 hour week. Detroit Civil Service Commission, 16th floor, Water Board Building, Detroit 26, Michigan.

Occupational Therapists. Applications invited from men and women graduate O.T's. This psychiatric hospital is nationally recognized. Excellent opportunity for career workers. Scheduled salary increases; holiday, vacation, and sick leave benefits. Salaries $3360 to $5000. Apply to PERSONNEL OFFICER, Topeka State Hospital, Topeka, Kansas.

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